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*R19/R20/R21*

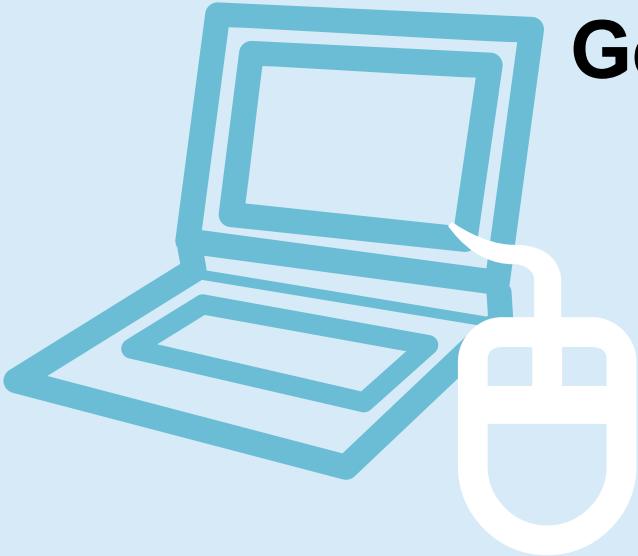
*R19plus/R20plus/R21plus*  
*R25plus/R26plus/P400*

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**User Guide**

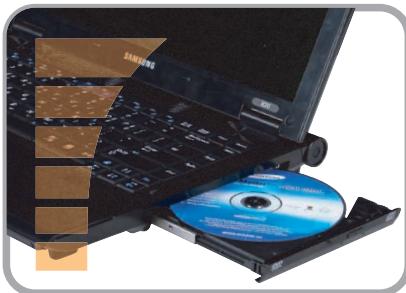
# Chapter 1.

# Getting Started



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# Product Features



## High Performance Notebook Computer

A high performance computer adopting the latest CPU and DDR II memory

- Intel Core™2 Duo Processor, Intel Core™ Duo/Solo Processor\*.
- DDR II Memory
- Wireless LAN\*, Bluetooth\*
- 14.1" Wide LCD

## Easy-to-Use AV

AVStation Viewer\* and AVStation Premium\* are provided to easily play various multimedia files.

## Sophisticated Design for Increased Usability

- AV Button and various shortcut keys on the keyboard
- Multi card slot\*
- Luxurious design with increased usability



### Note

\* The items marked with this symbol are optional items that are supported depending on the computer model.

# Before You Start

Before reading the User Guide, first check the following information.

## User Guide Information

This product is supplied with an **Installation Guide**, and a **User Guide**.

You can even more easily and conveniently use the computer by using any of the guides depending on your needs.

### Installation Guide

This guide is provided so that you can conveniently refer to this guide when using the computer for the first time after purchasing it.

This document includes the computer components and the connection procedures.



### User Guide

You are currently reading the User Guide. To open the file at any time, double-click the icon on the Desktop.

Alternatively, select **Start > All Programs > Samsung > User Guide > User Guide**.

This document includes the computer functions, how to use the functions, and how to use the program.

## Utilizing the User Guide

- ① Be sure to read the **Safety Precautions** before using the computer.
- ② Refer to the separately supplied **Installation Guide** when installing your computer.
- ③ Refer to the **User Guide** for the procedures to use the computer.
- ④ Using the **Index** of the User Guide, you can easily find any information you are looking for.
- ⑤ Using the **Glossary** of the User Guide, you can easily find meanings for technical terms.
- ⑥ If a problem occurs, refer to the **Q & A** included in the User Guide.



### Note

- Some devices and software referred to in the User Guide may not be provided and/or changed by upgrade.  
Note that the computer environment referred in the User Guide may not be the same as your own environment.
- Images used in this User Guide may differ from actual product.
- This guide describes procedures for using both the mouse and the touchpad.
- The illustrations provided in this guide assume that your operating system is Windows XP. These illustrations are subject to change.
- The User guide supplied with this computer may vary depending on your model.

## Safety Precaution Notations

Icon	Notation	Description
	<b>Warning</b>	Failing to follow instructions marked with this symbol, may cause personal injury and or fatality.
	<b>Caution</b>	Failing to follow instructions marked with this symbol, may cause slight injury to yourself or damage your property.

## Text Notations

Icon	Notation	Description
	<b>Before You Start</b>	Content included in this section includes information required before using a function.
	<b>Caution</b>	Content included in this section includes information required about the function.
	<b>Note</b>	Content included in this section includes helpful information to use the function.
	<b>Page XX</b>	This notation represents the page number you can refer to for information about related functions or as a reference.
<b>Start &gt; All Programs &gt; Samsung &gt; User Guide &gt; User Guide</b>		This represents a menu path to run a program. Click the Start button and then select <b>All Programs &gt; Samsung &gt; User Guide &gt; User Guide</b> in this order from the menu.

## Copyright

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No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, without the consent of Samsung Electronics Co., Ltd.

The information in this document is subject to change without notice due to improving the performance of the product.

Samsung Electronics shall not be liable for any data loss. Please take care to avoid losing any important data and backup your data to prevent any such data loss.

# About the Product Capacity Representation Standard

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## About HDD Capacity Representation

The capacity of the storage device (HDD, SSD) of the manufacturer is calculated assuming that 1KB=1,000 Bytes.

However, the operating system (Windows) calculates the storage device capacity assuming that 1KB=1,024 Bytes, and therefore the capacity representation of the HDD in Windows is smaller than the actual capacity due to the difference in capacity calculation.  
(E.g. For a 80GB HDD, Windows represents the capacity as  $74.5\text{GB}, 80 \times 1,000 \times 1,000 \times 1,000 \text{ byte} / (1,024 \times 1,024 \times 1,024) \text{ byte} = 74.505\text{GB}$ )

In addition, the capacity representation in Windows may be even smaller because some programs such as Recovery Solution may reside in a hidden area of the HDD.

## About Memory Capacity Representation

The memory capacity reported in Windows is lesser than the actual capacity of memory.

This is because BIOS or a video adapter uses a portion of memory or claims it for further use.

(E.g. For 1GB(=1,024MB) memory installed, Windows may report the capacity as 1,022MB or less)

The actual capacity of storage device can be checked in the Main menu of the BIOS Setup, accessible by pressing F2 key during boot.  
For further instructions on how to enter the BIOS Setup, refer to "Settings and Upgrade" in the User Guide.

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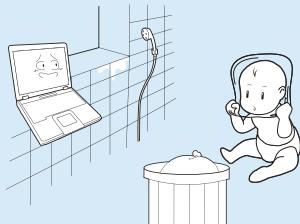
# Safety Precautions

For your security and to prevent damage, please read the following safety instructions carefully. Since this is commonly applied to Samsung Computers, some figures may differ from actual ones.

## ⚠ Warning

Failing to follow instructions marked with this symbol may cause personal injury and even fatality.

### Installation Related

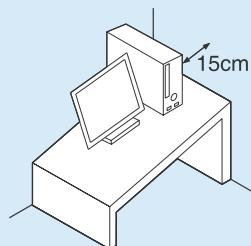


**Do not install the product in places exposed to humidity such as a bathrooms.**

There is a danger of electric shock. Use the product within the operating conditions specified in the Manufacturers User Guide.

**Keep the plastic bags out of the reach of children.**

There is a danger of suffocation.

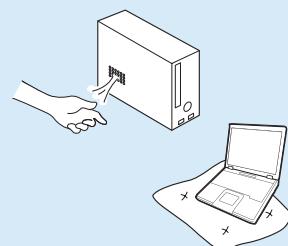


**Keep a distance of 15cm or more between the computer and the wall and do not place any objects between them.**

This may increase the internal temperature of the computer and may cause an injury.

**Do not install the computer on a slant or a place prone to vibrations, or avoid using the computer in that location for a long time.**

This increases the risk that a malfunction or damage to the product will occur.



**Avoid exposing any part of your body to the heat from the computer vent for a long time when it is on.**

Exposing a part of your body to the heat from the vent for long periods of time may cause a burn.

**Avoid blocking the vent at the bottom or side of the computer when using it on a bed or cushion.**

If the vent is blocked, there is a danger of damaging the computer or overheating the inside of the computer.

## Power Related

The power plug and wall outlet figures may differ depending on the country specifications and the product model.

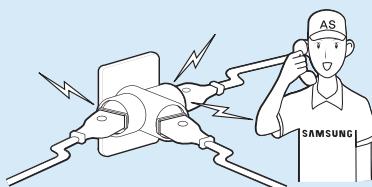


**Do not touch the mains plug or power cord with wet hands.**

There is a danger of electric shock.

**Do not exceed the standard capacity (voltage/current) of a multiplug or power outlet extension when using it for the product.**

There is a danger of electric shock or fire hazard.



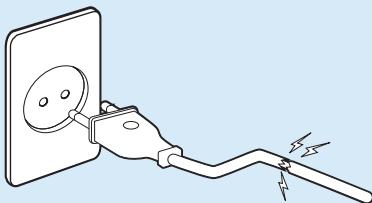
**If the power cord or power outlet makes a noise, disconnect the power cord from the wall outlet and contact a service center.**

There is a danger of electric shock or fire hazard.



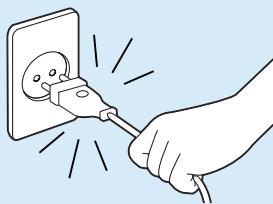
**Plug the power cord firmly into the power outlet and AC adapter.**

Failing to do so may cause fire hazard.



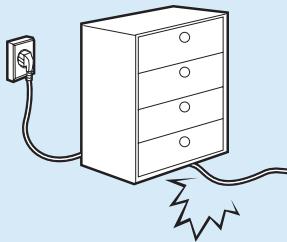
**Do not use a damaged or loose mains plug or power cord or power outlet.**

There is a danger of electric shock or fire hazard.



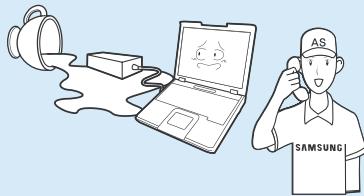
**Do not unplug the power cord out by pulling the cable only.**

If the cord is damaged, it may cause electric shock.



**Do not bend the power cord excessively or do not place a heavy object over the power cord. It is especially important to keep the power cord out of reach of infants and pets.**

If the cord is damaged, it may cause electric shock or fire.



**If water or another substance enters the power input jack, AC adapter or the computer, disconnect the power cord and contact the service center.**

Damage to the device within the computer may cause electric shock or fire hazard.

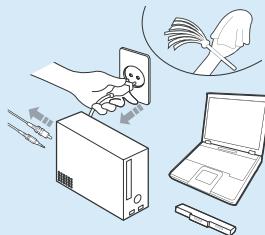
## Battery Usage Related



**Keep the battery out of the reach of infants and pets, as they could put the battery into their mouths.**

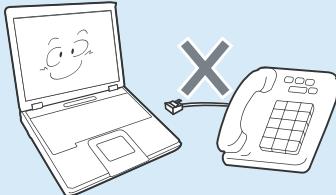
There is a danger of electric shock or choking.

## Usage Related



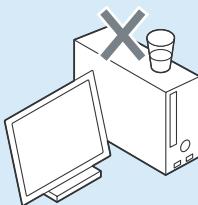
**Disconnect all cables connected to the computer before cleaning it. If you are using a notebook computer, remove the battery.**

There is a danger of electric shock or damage to the product.



**Do not connect a phone line connected to a digital phone to the modem.**

There is a danger of a electric shock, fire or damage to the product.



**Do not place any container filled with water or chemicals over or near the computer.**

If water or chemicals enter the computer, this may cause fire or electric shock.



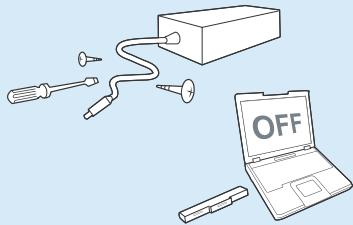
**If the computer is broken or dropped, disconnect the power cord and contact a service center for a safety check.**

Using a broken computer may cause electric shock or fire hazard.

**Avoid direct sunlight when the computer is in an air-tight location such as inside a vehicle.**

There is a danger of a fire hazard. The computer may overheat and also present opportunity to thieves.

## Upgrade Related



### Never disassemble the power supply or AC adapter.

There is a danger of electric shock.

### When removing the RTC (Real Time Clock) battery, keep it out of the reach of children as they could touch and/or swallow it.

There is a danger of choking. If a child has swallowed it, contact a doctor immediately.

### Use only authorized parts (multi-plug, battery and memory) and never disassemble parts.

There is a danger of damaging the product, electric shock or fire hazard.

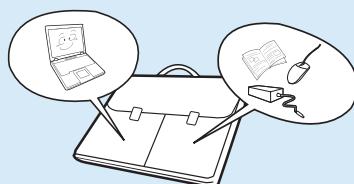
### Shut down the computer and disconnect all cables before disassembling the computer. If there is a modem, disconnect the phone line. If you are using a notebook computer, make sure to remove the battery.

Failing to do so, may cause electric shock.

## **Custody and Movement Related**



**Follow the instructions for the relevant location (e.g. airplane, hospital, etc.) when using a wireless communication device (wireless LAN, Bluetooth, etc.)..**



**When carrying the notebook computer with other items, such as the adapter, mouse, books etc, take care not to press anything against the notebook computer.**

If a heavy object is pressed against the notebook computer, a white stop or stain may appear on the LCD. Therefore, take care not to apply any pressure to the notebook.

In this case, place the notebook computer in a separate compartment away from the other objects.

## ! Caution

Failing to follow instructions marked with this symbol may cause slight injury or damage to the product.

### Installation Related

**Do not block the ports (holes), vents, etc. of the product and do not insert objects.**

Damage to a component within the computer may cause electric shock or fire.

**When using the computer with it lying on its side, place it so that the vents face upwards.**

Failing to do so, may cause the internal temperature of the computer to rise and the computer to malfunction or halt.

**Do not place a heavy object over the product.**

This may cause a problem with the computer. In addition, the object may fall and cause injury, or damage the computer.

### Battery Usage Related

**Dispose of worn-out batteries properly.**

- There is a danger of fire or explosion.
- The battery disposal method may differ depending on your country and region. Dispose of the used battery in an appropriate way.

**Do not throw or disassemble the battery and do not put it into water.**

This may cause an injury, fire or explosion.

**Use only a battery authorized by Samsung Electronics.**

Failing to do so may cause an explosion.

**Avoid contact with metal objects such as car keys or clips when keeping or carrying a battery.**

Contact with a metal may cause excessive current and a high temperature and may damage the battery or cause a fire.

**Charge the battery according to the instructions in the manual.**

Failing to do so, may cause an explosion or fire from damage to the product.

**Do not heat the battery or expose it to heat (e.g. inside a vehicle during the summer).**

There is a danger of explosion or fire.

## Usage Related

**Do not place a candle, lighted cigar, etc. over or on the product.**

There is a danger of fire.

**Use a wall outlet or multi-plug with a grounding part.**

Failing to do so may cause electric shock hazard.

**Make sure to have the product tested by a safety service engineer after repairing the product.**

Authorised Samsung Repair Centers will carry out safety checks after a repair. Using a repaired product without testing it for safety might cause electric shock or fire.

**In case of lightning, immediately turn the system off, disconnect the power cord from the wall outlet and line do not use a modem or phone.**

There is a danger of electric shock or fire.

**Do not use your computer and AC-Adapter on your lap or soft surfaces.**

If the computer temperature increases, there is a danger of burning yourself.

**Connect only permitted devices to the connectors or ports of the computer.**

Failing to do so, may cause electric shock and fire.

**Close the LCD panel only after checking if the notebook computer is turned off.**

The temperature may rise and it may cause overheating and deformation of the product.

**Do not press the Eject Button while the Floppy Disk/CD-ROM drive is in operation.**

You might lose data and the disk might be suddenly ejected and could cause an injury.

**Take care not to drop the product while using it.**

This may cause personal injury or loss of data.

**Do not contact the antenna with electricity facility such as the power outlet.**

There is a danger of electric shock.

**When handling computer parts, follow the instructions on the manual supplied with the parts.**

Failing to do so, may cause damage to the product.

**If the computer emits smoke, or there is a burning smell, disconnect the power plug from the wall outlet and contact a service center. If your computer is a notebook computer, make sure to remove the battery.**

There is a danger of fire.

## Upgrade Related

**Do not use a damaged or modified CD/Floppy Disk.**

There is a danger of damaging the product or personal injury.

**Do not insert your fingers into the PC Card Slot.**

There is a danger of injury or electric shock.

**Use recommended computer cleansing solution when cleaning the product and only use the computer when it is completed dried.**

Failing to do so may cause electric shock or fire.

**Emergency disk eject method using paperclip should not be used while the disk is in motion. Make sure to use the emergency disk eject method only when the Optical Disk Drive is stopped.**

There is a danger of injury.

**Do not place your face close to the Optical Disk Drive tray when it is operating.**

Do not place your face close to the Optical Disk Drive tray when it is operating.

**Check CDs for cracks and damage prior to use.**

It may damage the disc and cause disorder of device and injury of user.

**Take care when touching the product or parts.**

The device may be damaged or you may be injured.

**Take care not to throw or drop a computer part or device.**

This may cause injury or damage to the product.

**Make sure to close the computer cover before connecting the power after a reassembly.**

There is a danger of electric shock if your body touches an internal part.

**Use parts authorized by Samsung Electronics only.**

Failing to do so, may cause fire or damage the product.

**Never disassemble or repair the product by yourself.**

There is a danger of electric shock or fire.

**To connect a device that is not manufactured or authorized by Samsung Electronics, enquire at your service center before connecting the device.**

There is a danger of damaging the product.

## **Custody and Movement Related**

**When moving the product, turn the power off and separate all connected cables first.**

The product might be damaged or users may trip over the cables.

**For long periods of not using the notebook computer, discharge the battery and preserve as it is detached.**

The battery will be preserved at its best condition.

**Do not operate or watch the computer while driving a vehicle.**

There is a danger of a traffic accident. Please concentrate on driving.

## **Cautions on Preventing Data Loss (Hard Disk Management)**

### **Take care not to damage the data on a hard disk drive.**

- A hard disk drive is so sensitive to external impact that an external impact may cause loss of data on the surface of the disk.
- Take extra care, because moving the computer or an impact on the computer when it is turned on may damage the data of the hard disk drive.
- The company is not liable for the loss of any data caused by customer such as the carelessness usage or bad environmental condition.

### **Causes that may damage the data of a hard disk drive and the hard disk drive itself.**

- The data may be lost when an external impact is applied to the disk while disassembling or assembling the computer.
- The data may be lost when the computer is turned off or reset by a power failure while the hard disk drive is operating.
- The data may be lost and irrecoverable due to a computer virus infection.
- The data may be lost if the power is turned off while running a program.
- Moving or causing an impact to the computer while the hard disk drive is operating, may cause files to be corrupted or bad sectors on the hard disk.

**To prevent data loss due to damage to the hard disk drive, please backup your data frequently.**

# USA ONLY

This Perchlorate warning applies only to primary CR (Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA.

“Perchlorate Material- special handling may apply, See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).”

 LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS.

For details see [lamprecycle.org](http://lamprecycle.org), [eise.org](http://eise.org), or call 1-800-Samsung.

# Proper Posture During Computer Use

Maintaining a proper posture during computer use is very important to prevent physical harm.

The following instructions are about maintaining a proper posture during computer use developed through human engineering. Please read and follow them carefully when using the computer.

Otherwise, the probability of (RSI: Repetitive Strain Injury) from repeated operations may increase and serious physical harm may be caused.



## Note

The instructions in this manual have been prepared so that they can be applied within the coverage of general users.

If the user is not included in the coverage, the recommendation is to be applied according to the user's needs.

## Proper Posture

### Adjust the heights of desks and chairs appropriate to your height.

The heights are to be adjusted so that your arm forms a right angle when you place your hand over the keyboard while sitting down on a chair.

Adjust the height of chair so that your heel is comfortably placed on the floor.

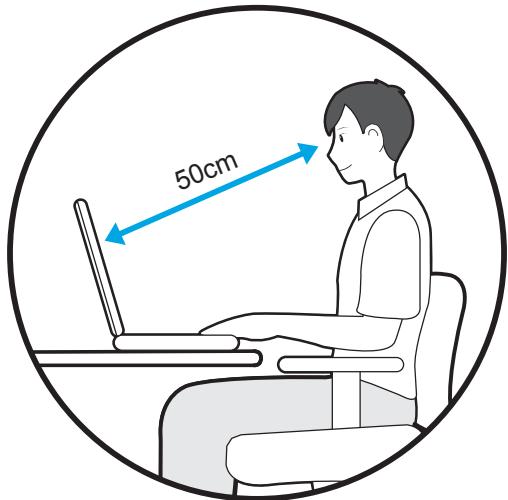
- Do not use the computer while you are lying down, but only while you are sitting down.
- Do not use the computer on your lap. If the computer temperature increases, there is a danger of burning yourself.
- Work while keeping your wrist straight.
- Use a chair with a comfortable back.
- Keep the center of your leg weight not on the chair but on your feet when you are sitting on a chair.

- To use the computer while talking over the telephone, use a headset. Using the computer with the phone on your shoulder is bad for posture.
- Keep frequently used items within a comfortable work range (where you can reach them with your hands).



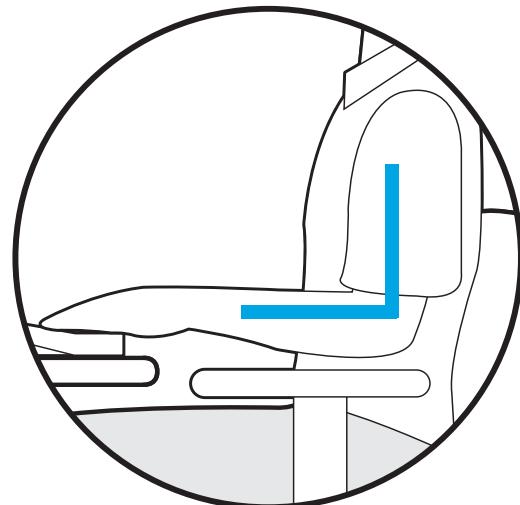
## Eye Position

Keep the monitor or LCD away from your eyes by at least 50cm.



## Hand Position

Keep your arm at a right angle as shown by the figure.



- Adjust the height of the monitor and the LCD screen so that its top height is equal to or lower than your eyes.
- Avoid setting the monitor and LCD excessively bright.
- Keep the monitor and LCD screen clean.
- If you wear glasses, clean them before using the computer.
- When entering contents printed on a paper into the computer, use a static paper holder so that the height of the paper is almost equal to that of the monitor.

- Keep the line from your elbow to your hand straight.
- Do not place your palm over the keyboard while typing.
- Do not hold the mouse with excessive force.
- Do not press the keyboard, touchpad or mouse with excessive force.
- It is recommended connecting an external keyboard and mouse when using the computer for long periods of time.

## Volume Control (Headphones and Speakers)

---

**Check your volume first to listen to music.**



- Check if the volume is too loud before using headphones.
- It is not recommended using headphones for long periods of time.
- Any deviation from the equalizer default setting could cause hearing impairment.
- The default setting can be changed through software and driver updates without your intervention. Please check the equalizer default setting before first usage.

## Illumination

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- Do not use the computer in dark locations. The illumination level for computer use must be as bright as for reading a book.
- Indirect illumination is recommended. Use a curtain to prevent reflection on the LCD screen.

## Operation Condition

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- Do not use the computer in hot and humid locations.
- Use the computer within the allowed temperature and humidity range specified in the User Guide.

## Use Time (Break Time)

---

- Take a break for 10 minutes or more after a 50-minute period when working for more than one hour.

# Important Safety Information

## Safety Instructions

Your system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.



Always follow these instructions to help guard against personal injury and damage to your system.

### Caution

## Setting Up your System

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only with the type of power source indicated on the rating label.
- Ensure that the electrical outlet you are using to power your equipment is easily accessible in case of fire or short circuit.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area.

- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.
- Ensure that the fan vents on the bottom of the casing are clear at all times. Do not place the computer on a soft surface, doing so will block the bottom vents.
- If you use an extension cord with this system, make sure that the total power rating on the products plugged into the extension cord does not exceed the extension cord power rating.

## Care During Use

---

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to not eat or drink near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer.  
Dispose of batteries according to the manufacturers instructions. If the CMOS battery requires replacement insure that a qualified technician performs the task.
- When the computer is turned off, a small amount of electrical current still flows through the computer.  
To avoid electrical shock, always unplug all power cables, remove the battery and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not operate properly when the operating instructions are followed.
  - The system was dropped or the casing is damaged.
  - The system performance changes.

## The Instruction On Safety Operation of NotePC

---

- 1** When installing and operating devices please refer to safety requirements in the user guide.
- 2** Devices can be used only with the equipment specified in the technical specifications of the devices.
- 3** If any smell of burning or smoke from the computer the unit should be switched off and battery removed.  
The unit should be checked by a qualified technician before reuse.
- 4** Service and repair of devices should be carried out by authorized service centers.

# Replacement Parts and Accessories

Use only replacement parts and accessories recommended by manufacturer.



To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

## Caution



### Note

Do not use this product in areas classified as hazardous. Such areas include patient care areas of medical and dental facilities, oxygen rich environments, or industrial areas.

## Battery Disposal



Do not put rechargeable batteries or products powered by non-removable rechargeable batteries in the garbage.

### Caution

Contact the Samsung Helpline for information on how to dispose of batteries that you cannot use or recharge any longer.

Follow all local regulations when disposing of old batteries.



THERE IS A RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

### Caution

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

## Laser Safety

All systems equipped with CD or DVD drives comply with the appropriate safety standards, including IEC 60825-1. The laser devices in these components are classified as "Class 1 Laser Products" under a US Department of Health and Human Services (DHHS) Radiation Performance Standard. Should the unit ever need servicing, contact an authorized service location.



### Caution

#### ▪ **Laser Safety Note:**

Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. To prevent exposure to laser beams, do not try to open the enclosure of a CD or DVD drive.

- Class 1M laser radiation when operating part is open.  
Do not view directly with optical instruments.
- Class 3B invisible laser radiation when open.  
Avoid exposure to the beam.

## Connect and Disconnect the AC adapter

The socket-outlet shall be installed near the equipment and shall be easily accessible.

**Do not unplug the power cord out by pulling the cable only.**

## Power Cord Requirements

The power cord set (wall plug, cable and AC adapter plug) you received with your computer meets the requirements for use in the country where you purchased your equipment.

Power cord sets for use in other countries must meet the requirements of the country where you use the computer. For more information on power cord set requirements, contact your authorized dealer, reseller, or service provider.

## General Requirements

---

**The requirements listed below are applicable to all countries:**

- The length of the power cord set must be at least 6.00 feet (1.8m) and a maximum of 9.75 feet (3.0m).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be used.
- The power cord set must have a minimum current capacity of 7 A and a nominal voltage rating of 125 or 250 volts AC, as required by each country's power system.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C7 connector, for mating with appliance inlet on the computer.

# Regulatory Compliance Statements

## Wireless Guidance

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. The following section is a general overview of considerations while operating a wireless device.

Additional limitations, cautions, and concerns for specific countries are listed in the specific country sections (or country group sections). The wireless devices in your system are only qualified for use in the countries identified by the Radio Approval Marks on the system rating label. If the country you will be using the wireless device in, is not listed, please contact your local Radio Approval agency for requirements. Wireless devices are closely regulated and use may not be allowed.

The RF field strength of the wireless device or devices that may be embedded in your notebook are well below all international RF exposure limits as known at this time. Because the wireless devices (which may be embedded into your notebook) emit less energy than is allowed in radio frequency safety standards and recommendations, manufacturer believes these devices are safe for use. Regardless of the power levels, care should be taken to minimize human contact during normal operation.

As a general guideline, a separation of 20 cm (8 inches) between the wireless device and the body, for use of a wireless device near the body (this does not include extremities) is typical. This device should be used more than 20 cm (8 inches) from the body when wireless devices are on and transmitting.

(This Statement is not applicable to UMPC(Ultra Mobile PC) such as PDA, Portable PC.)

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

Some circumstances require restrictions on wireless devices. Examples of common restrictions are listed below:



## Caution

- Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. 802.11B (also known as wireless Ethernet or Wifi) and Bluetooth communication devices are examples of devices that provide wireless communication.
- In environments where the risk of interference to other devices or services is harmful or perceived as harmful, the option to use a wireless device may be restricted or eliminated. Airports, Hospitals, and Oxygen or flammable gas laden atmospheres are limited examples where use of wireless devices may be restricted or eliminated. When in environments where you are uncertain of the sanction to use wireless devices, ask the applicable authority for authorization prior to use or turning on the wireless device.
- Every country has different restrictions on the use of wireless devices. Since your system is equipped with a wireless device, when traveling between countries with your system, check with the local Radio Approval authorities prior to any move or trip for any restrictions on the use of a wireless device in the destination country.
- If your system came equipped with an internal embedded wireless device, do not operate the wireless device unless all covers and shields are in place and the system is fully assembled.
- Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Please contact manufacturer for service.
- Only use drivers approved for the country in which the device will be used. See the manufacturer System Restoration Kit, or contact manufacturer Technical Support for additional information.

## United States of America

### USA and Canada Safety Requirements and Notices

Do not touch or move antenna while the unit is transmitting or receiving.

Do not hold any component containing the radio such that the antenna is very close or touching any exposed parts of the body, especially the face or eyes, while transmitting.

Do not operate the radio or attempt to transmit data unless the antenna is connected; if not, the radio may be damaged.

#### Use in specific environments:

The use of wireless devices in hazardous locations is limited by the constraints posed by the safety directors of such environments.

The use of wireless devices on airplanes is governed by the Federal Aviation Administration (FAA).

The use of wireless devices in hospitals is restricted to the limits set forth by each hospital.



**Caution**

#### Explosive Device Proximity Warning

Do not operate a portable transmitter (such as a wireless network device) near unshielded blasting caps or in an explosive environment unless the device has been modified to be qualified for such use.



**Caution**

#### Use On Aircraft Caution

Regulations of the FCC and FAA prohibit airborne operation of radio-frequency wireless devices because their signals could interfere with critical aircraft instruments.

### Other Wireless Devices

#### Safety Notices for Other Devices in the Wireless Network:

Refer to the documentation supplied with wireless Ethernet adapters or other devices in the wireless network.



**Caution**

The Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification to said product not expressly approved by Intel could void the user's authority to operate this device.

### Unintentional Emitter per FCC Part 15

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



### Caution

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference which will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet helpful: "Something About Interference."

This is available at FCC local regional offices. Our company is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by our company. The correction will be the responsibility of the user. Use only shielded data cables with this system.

## Intentional emitter per FCC Part 15

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the United States of America if an FCC ID number is on the system label.

The FCC has set a general guideline of 20 cm (8 inches) separation between the device and the body, for use of a wireless device near the body (this does not include extremities). This device should be used more than 20 cm (8 inches) from the body when wireless devices are on. The power output of the wireless device (or devices), which may be embedded in your notebook, is well below the RF exposure limits as set by the FCC. (This Statement is not applicable to UMPc(Ultra Mobile PC) such as PDA, Portable PC.)

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

**Caution**

Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.

**Caution**

**FCC Statement for Wireless LAN use:**  
"While installing and operating this transmitter and antenna combination the radio frequency exposure limit of 1mW/cm<sup>2</sup> may be exceeded at distances close to the antenna installed. Therefore, the user must maintain a minimum distance of 20cm from the antenna at all times. This device can not be colocated with another transmitter and transmitting antenna." (This Statement is not applicable to UMPC(Ultra Mobile PC) such as PDA, Portable PC.)

The REN is used to determine the quantity of devices which may be connected to telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by total RENs, contact the local telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the Telephone Company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advanced notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment (Modem) for repair or warranty information, please contact your local distributor. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

The user must use the accessories and cables supplied by the manufacturer to get optimum performance from the product.

No repairs may be done by the customer.

## Canada

This equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs.

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission,

the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be any number for which charges exceed local or long-distance transmission charges.)

In order to program this information into your fax machine, refer to your communications software user manual.

### Unintentional Emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

### Intentional Emitter per RSS 210

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in Canada if an Industry Canada ID number is on the system label.

As a general guideline, a separation of 20 cm (8 inches) between the wireless device and the body, for use of a wireless device near the body (this does not include extremities) is typical. This device should be used more than 20 cm (8 inches) from the body when wireless devices are on.

The power output of the wireless device (or devices), which may be embedded in your notebook, is well below the RF exposure limits as set by Industry Canada.

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.



#### Caution

To prevent radio interference to licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.



#### Caution

Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.

## Telecommunications per DOC notice (for products fitted with an IC-compliant modem)

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should make sure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated

with a single-line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should make sure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.



#### Caution

To avoid electrical shock or equipment malfunction do not attempt to make electrical ground connections by yourself. Contact the appropriate inspection authority or an electrician, as appropriate.

The **Ringer Equivalence Number (REN)** assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

## European Union

### European Union CE Marking and Compliance Notices

Products intended for sale within the European Union are marked with the Conformité Européene (CE) Marking, which indicates compliance with the applicable Directives and European standards and amendments identified below. This equipment also carries the Class 2 identifier. The following information is only applicable to systems labeled with the CE mark.

### European Directives

This Information Technology Equipment has been tested and found to comply with the following European directives:

- EMC Directive 89/336/EEC with amending directives 92/31/EEC & 93/68/EEC as per
  - EN 55022 Class B
  - EN 61000-3-2
  - EN 61000-3-3
  - EN 55024
- Low Voltage Directive (Safety) 73/23/EEC as per EN 60950(A1/A2/A3/A4/A11)
- Radio and Telecom Terminal Equipment Directive 199/5/EC as per
  - CTR21 (if fitted with a modem device)
  - ETS 300 328 (if fitted with a 2.4 GHz band embedded wireless device)
  - ETS 301 489-1 (if fitted with a 2.4 GHz band embedded wireless device)
  - ETS 301 489-17 (if fitted with a 2.4 GHz band embedded wireless device)

### European Radio Approval Information (for products fitted with EU-approved radio devices)

This Product is a Notebook computer; low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz band, may be present (embedded) in your notebook system which is intended for home or office use. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the European Union or associated areas if a CE mark with a Notified Body Registration Number and the Alert Symbol is on the system label.

The power output of the wireless device or devices that may be embedded in your notebook is well below the RF exposure limits as set by the European Commission through the R&TTE directive.



#### Caution

See 802.11b and 802.11g restrictions for specific countries or regions within countries under the heading "European Economic Area Restrictions" below.

## Translated Statements of Compliance

### [English]

This product follows the provisions of the European Directive 1999/5/EC.

### [Danish]

Dette produkt er i overensstemmelse med det europæiske direktiv 1999/5/EC

### [Dutch]

Dit product is in navolging van de bepalingen van Europees Directief 1999/5/EC.

### [Finnish]

Tämä tuote noudattaa EU-direktiivin 1999/5/EC määräyksiä.

### [French]

Ce produit est conforme aux exigences de la Directive Européenne 1999/5/EC.

### [German]

Dieses Produkt entspricht den Bestimmungen der Europäischen Richtlinie 1999/5/EC

### [Greek]

Το προϊόν αυτό πληροί τις προβλέψεις της Ευρωπαϊκής Οδηγίας 1999/5/EC.

### [Icelandic]

Þessi vara stenst reglugerð Evrópska Efnahags Bandalagsins númer 1999/5/EC

### [Italian]

Questo prodotto è conforme alla Direttiva Europea 1999/5/EC.

### [Norwegian]

Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 1999/5/EC.

### [Portuguese]

Este produto cumpre com as normas da Diretiva Européia 1999/5/EC.

### [Spanish]

Este producto cumple con las normas del Directivo Europeo 1999/5/EC.

### [Swedish]

Denna produkt har tillverkats i enlighet med EG-direktiv 1999/5/EC.

## Translated Statements of Compliance

### Local Restriction of 802.11b/802.11g Radio Usage

[Note to integrator: The following statements on local restrictions must be published in all end-user documentation provided with the system or product incorporating the Intel PRO/Wireless 2200BG Network Connection product.]



#### Caution

Due to the fact that the frequencies used by 802.11b/802.11g wireless LAN devices may not yet be harmonized in all countries, 802.11b/802.11g products are designed for use only in specific countries or regions, and are not allowed to be operated in countries or regions other than those of designated use.

As a user of these products, you are responsible for ensuring that the products are used only in the countries or regions for which they were intended and for verifying that they are configured with the correct selection of frequency and channel for the country or region of use. Any deviation from permissible settings and restrictions in the country or region of use could be an infringement of local law and may be punished as such.

The European variant is intended for use throughout the European Economic Area. However, authorization for use is further restricted in particular countries or regions within countries, as follows:

## General

European standards dictate maximum radiated transmit power of 100 mW effective isotropic radiated power (EIRP) and the frequency range 2400 – 2483.5 MHz.

## Belgium

The product may be used outdoors, but for outdoor transmissions over a distance of 300m or more, a license from the BIPT is required.

This restriction should be indicated in the manual as follows:

Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au-dessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès de l'IBPT est requise. Pour une utilisation publique à l'extérieur de bâtiments, une licence de l'IBPT est requise. Pour les enregistrements et licences, veuillez contacter l'IBPT.

## France

For Metropolitan departments:

2.400 - 2.4835 GHz for indoor use.

2.400 -2.454 GHz (channels 1 to 7) for outdoor use.

For Guadeloupe, Martinique, St Pierre et Miquelon, Mayotte:

2.400 - 2.4835 GHz for indoor and outdoor use.

For Reunion, Guyane:

2.400 - 2.4835 GHz for indoor use.

2.420 - 2.4835 GHz for outdoor use (channels 5 to 13)

## European Telecommunication Information (for products fitted with EU-approved modems)

Marking by the symbol indicates compliance of this equipment to the Radio and Telecom Terminal Equipment Directive 1999/5/EC. Such marking is indicative that this equipment meets or exceeds the following technical standards:

CTR 21 – Attachment requirements for pan-European approval for connection to the analogue Public Switched Telephone Networks (PSTNs) of TE (excluding TE supporting voice telephony services) in which network addressing, if provided, is by means of Dual Tone Multi-Frequency (DTMF) signaling.



### Caution

Although this equipment can use either loop disconnect (pulse) or DTMF (tone) signaling, only the performance of the DTMF signaling is subject to regulatory requirements for correct operation.

It is therefore strongly recommended that the equipment is set to use DTMF signaling for access to public or private emergency services. DTMF signaling also provides faster call setup.

This equipment has been approved to Council Decision 98/482/EEC—"CTR 21" for Pan-European single terminal connection to the Public Switched Telephone Network (PSTN).

However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN termination point. In the event of problems, you should contact manufacturer Technical Support.

# WEEE SYMBOL INFORMATION



## Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

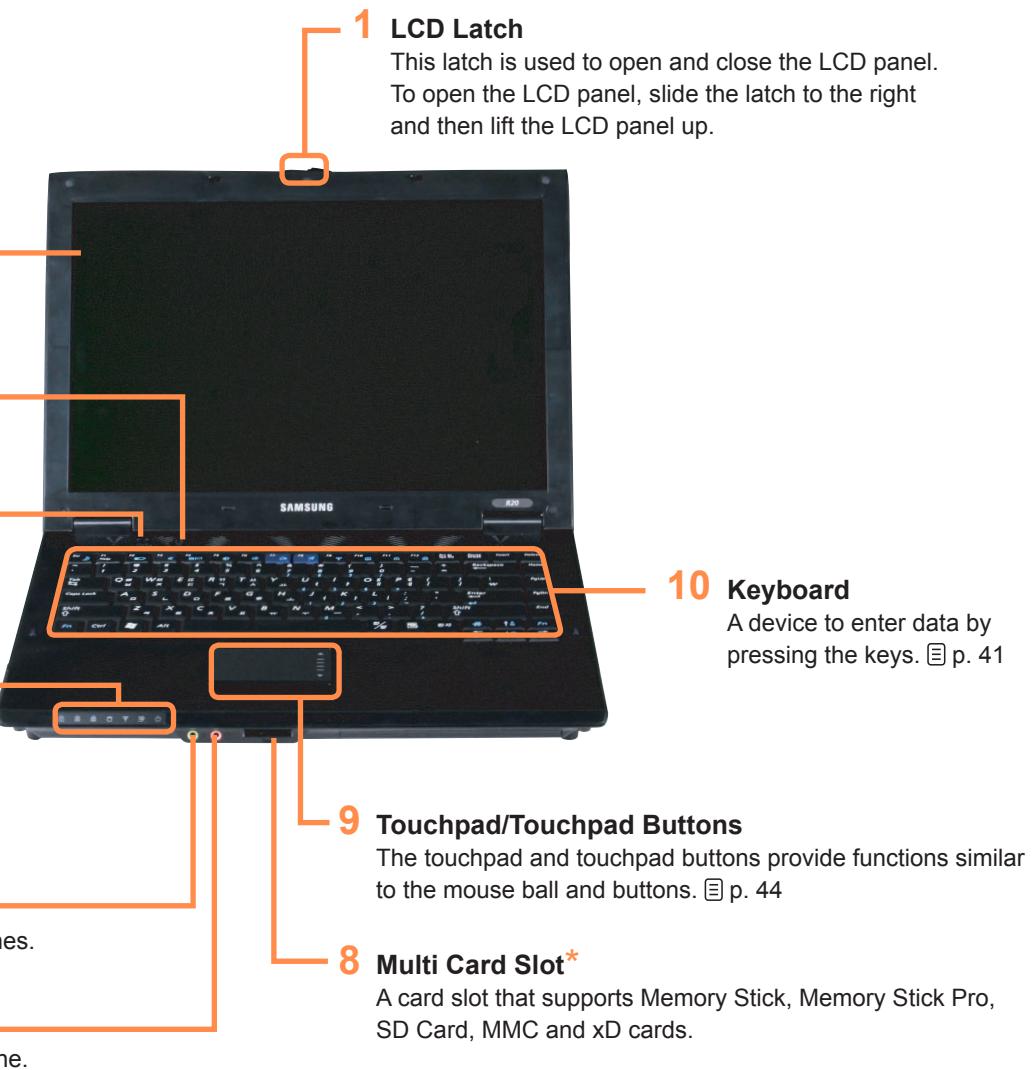
# Overview



## Before You Start!

- \*The items marked with this symbol are optional items which may be changed or may not be provided depending on the computer model.
- The actual color and appearance of the computer may differ from the pictures used in this guide.

## Front View



## Status Indicators



### 4 HDD

This is turned on when the HDD is being accessed.

### 5 Wireless LAN

This turns on when the wireless LAN is operating.

### 6 Charge Status

This shows the power source and the battery charge status.

**Green:** When the battery is fully charged or the battery is not installed.

**Amber:** When the battery is being charged.

**Off:** When the computer is running on battery power without being connected to AC adapter.

### 7 Power

This shows the computer operating status.

**On :** When the computer is operating

**Blinks:** When the computer is in Sleep mode.

## Right View



### 1 CD Drive (ODD)\*

Plays CD or DVD titles.

Since an ODD drive is optional, the installed drive depends on the computer model. [p. 47](#)

## Left View

### 1 DC Jack

A jack to connect the AC adapter that supplies power to the computer.

### 3 Monitor Port

A port used to connect a monitor, TV or projector supporting a 15pin D-SUB interface. [p. 53](#)



#### Note

The monitor port color may differ from the actual one.



### 2 Fan Vents

The internal heat of the computer is emitted through these holes.



#### Caution

If the vents are blocked the computer may overheat. Avoid blocking the vents as this may be dangerous.

### 5 Wired LAN Port\*

Connect the Ethernet cable to this port. [p. 68](#)

### 4 Modem Port\*

A port to which a telephone cable is connected to in order to dial up to the Internet.

### 7 PCI ExpressCard Slot

Install the PCI Express card into this slot.

### 6 USB Port

You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.

## Back View



### 1 Security Lock Port

You can connect a Kensington lock to the Security Lock Port to prevent the computer from being stolen.

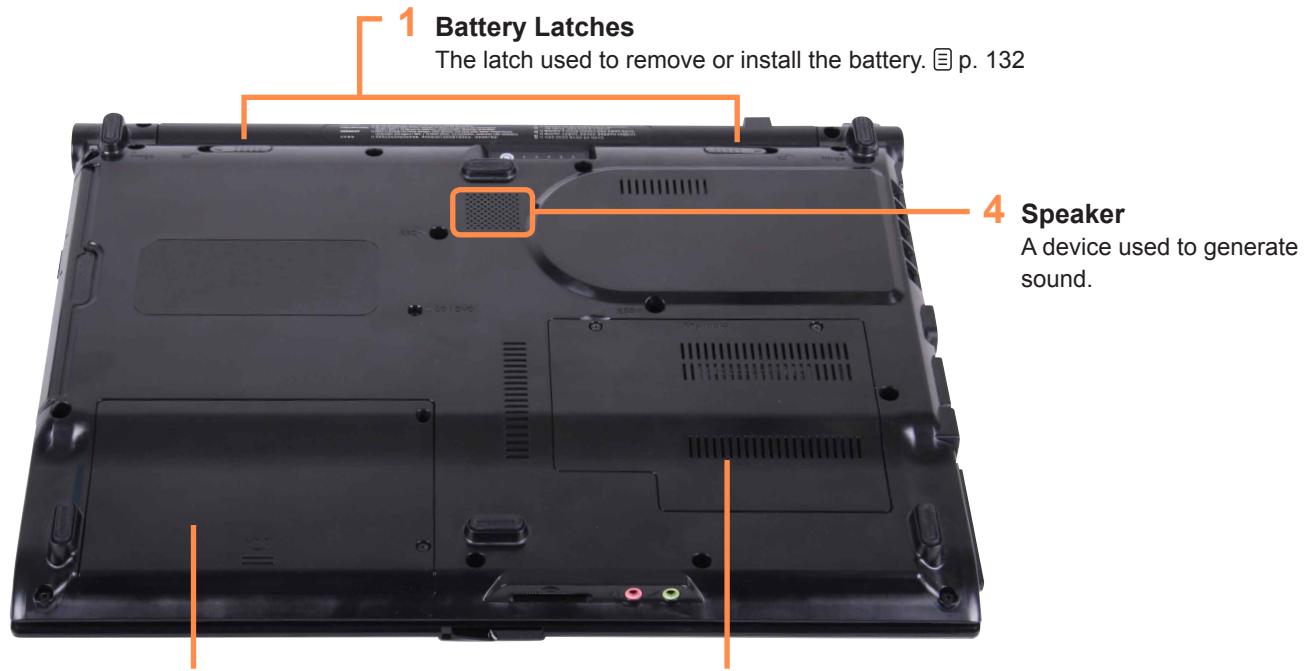
### 2 Battery

This is a Lithium-Ion rechargeable battery that supplies power to the computer. [p. 132](#)

### 3 USB Port

You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.

## Bottom View



# Turning the Computer On and Off

## Turning the computer on

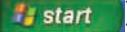
- 1 Install the **battery** and connect the **AC adapter**. (Refer to the **Installation Guide**.)
- 2 Slide the **LCD Latch** to the right and then lift up the LCD panel.
- 3 Press the **Power button** to turn the computer on.



### Note

If the LCD brightness is too dim, press the **Fn**+  
 keys and adjust the screen brightness.  
 p. 43

## Turning the computer off

- 1 Click the **start** button () on the taskbar.
- 2 Click **Turn Off Computer**.
- 3 Click **Turn Off**.



### Caution

- If the computer has not turned off properly due to a system error, press **<Ctrl>+<Alt>+<Delete>**. When [Windows Task Manager] dialog box appears, click **Shut Down > Turn Off** to turn off the computer. Your unsaved work may be lost/damaged.
- If **<Ctrl>+<Alt>+<Delete>** keys do not operate either, press the power button for more than 4 seconds to turn off the computer. Your unsaved work may be lost/damaged. The next time you turn on your computer, a hard disk check will be performed, before Windows starts.

# Chapter 2.

# Using the computer



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# Keyboard



The keyboard is supplied according to the corresponding country. Refer to the keyboard figure for the corresponding country.

## United Kingdom



## United States



## Shortcut Keys

You can use the following functions by pressing the keys below with the **Fn** key.



Fn+	Name	Function
	<b>REST (Sleep Mode)</b>	Switches to Sleep mode. To wake the computer up, press the Power button.
	<b>Gauge</b>	Shows the remaining battery charge. You can only use this function when the Easy Display Manager program is installed.
	<b>Euro</b>	Enters the Euro monetary unit symbol. This key may not be provided depending on the keyboard type.
	<b>CRT/LCD</b>	Switches the screen output to the LCD or external monitor when an external monitor (or TV) is connected to the computer. <small>参见 p. 53</small>
	<b>Backlit</b>	Turns the LCD backlight on or off.
	<b>Mute</b>	Mutes or cancels mute.
	<b>Samsung Magic Doctor</b>	System diagnosis, recovery and Internet consultation program, Samsung Magic Doctor, will be launched.  You can select operation mode when you need maximum system performance or low-noise/low power consumption with one-click. <ul style="list-style-type: none"><li>■ Silent: Low-noise and low power consumption mode</li><li>■ Normal: Normal Mode</li><li>■ Speed: Maximum performance mode. The system operates in its maximum performance, and system resources are allocated to the currently active program with priority for maximum performance.</li></ul>
	<b>Easy SpeedUp Manager</b>	Turns the wireless LAN function on or off in models with wireless LAN capability.
	<b>Touchpad</b>	Turns the Touchpad function on or off. When using an external mouse only, you can turn the Touchpad off.
	<b>Num Lock</b>	Turns the numeric keyboard on or off.
	<b>Scroll Lock</b>	If you turn the Scroll Lock on, you can scroll the screen up or down without changing the cursor location in some applications.

## Screen Brightness Control

---

To adjust the LCD brightness press the **Fn** + (  ) key combination or the **Fn** + (  ) key combination.  
The changed screen brightness is displayed at the center of the screen for a moment.

## Other Function Keys

---

### ■ Application Key ( )

Performs the right-click mouse function (touchpad).

### ■ Internet Explorer Quick Launch Key : (Fn+)

Launches Internet Explorer.

## Volume Control

---

To control the volume, press the **Fn** + (  ) key combination or the **Fn** + (  ) key combination.  
You can mute the sound or cancel the mute function by clicking the **Fn** + (  ) key combination.

## Numeric Key

---

The numbers are printed in blue on the numeric keys.  
If Num Lock is turned on by pressing the **Fn** + (  ) key combination, you can use the numeric keys to enter digits.

# Touchpad

The touchpad provides the same function as a mouse and the left and right buttons of the touchpad plays the role of the left and right buttons of a mouse.



## Before You Start!

- Use the Touchpad with your fingers. Using a sharp object may damage the Touchpad.
- If you touch the Touchpad or press the Touchpad buttons while booting up, the Windows boot time may be extended.

**Touchpad**  
Use to move the cursor.



**Scroll Area**  
Plays the role of the mouse wheel.  
You can scroll up and down using the Scroll Area.

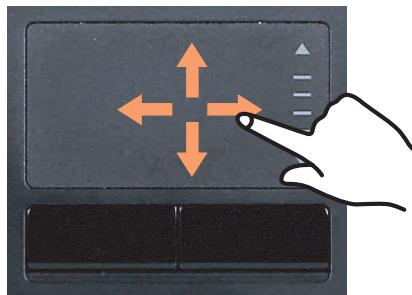
**Touchpad Left Button**  
You can select or run a program using this button.

**Touchpad Right Button**  
Plays the role of the right mouse button.

## Moving the cursor on the screen

---

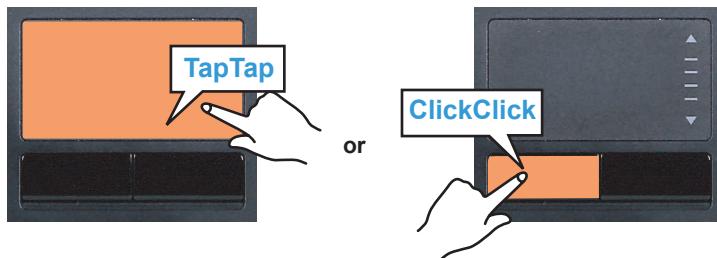
Place your finger on the touchpad slightly and move your finger. The mouse cursor will move accordingly. Move your finger in the direction you wish to move the cursor.



## Double-Click Function

---

Put your finger on the touchpad and quickly tap twice with your finger on an item you want.  
Alternatively, press the left touchpad button twice quickly.

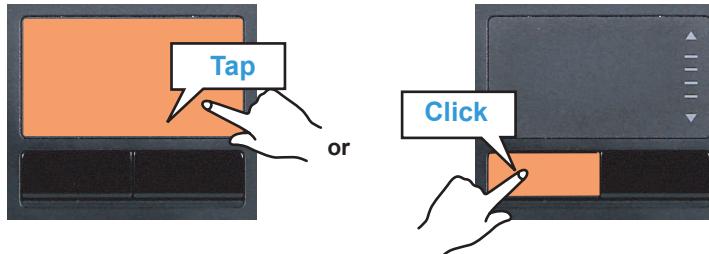


## Click Function

---

Place your finger on the touchpad and tap your finger once over an item you want.

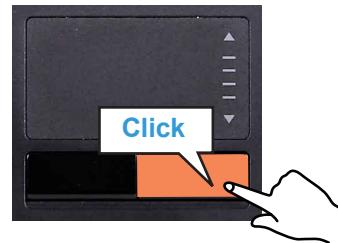
Alternatively, press the left touchpad button once.



## Right Button Function

---

This corresponds to clicking the right mouse button.  
Press the right touchpad button once. The corresponding pop-up menu appears.

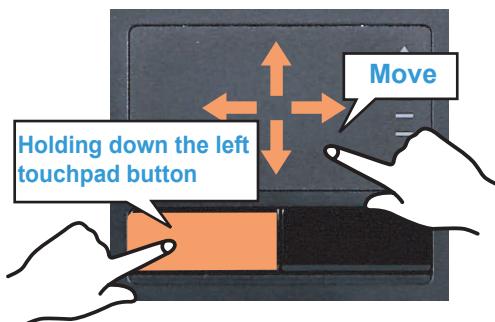


## Drag Function

---

Dragging refers to moving an item to another place after selecting it.

Press and hold down the left touchpad button over an item you want to drag and move the item to the new location.

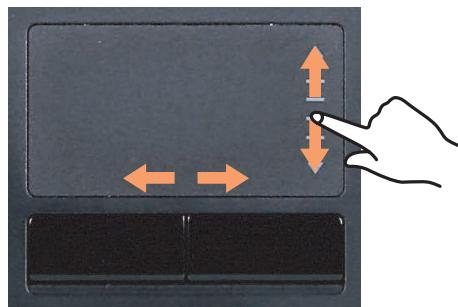


## Touchpad Scroll Function

---

The touchpad scroll area provides the mouse wheel function (scroll function).

Place your finger on the touchpad's right edge for vertical scrolling or the bottom edge for horizontal scrolling and then move your finger along the edge to scroll the screen vertically or horizontally.



## Touchpad On/Off Function

---

If you want to use the mouse only without using the touchpad, you can turn the touchpad off.

To lock the touchpad function, press the **Fn** + (F10) keys.

# CD Drive (ODD)

An optical disk drive is optional and may differ depending on your computer model. For detailed specifications, refer to the catalogue.



## Before You Start!

One of the following optical disk drives is installed on this computer.

Drive Type	Function
CD-ROM	Reads CD.
DVD-ROM	Reads CD/DVD.
RW-Combo	You can read CDs and DVDs, and burn a CD.
DVD Super Multi	You can read CDs and DVDs, and burn CDs and DVDs. Supported DVD recording types include DVD±R, DVD±RW, DVD-RAM.

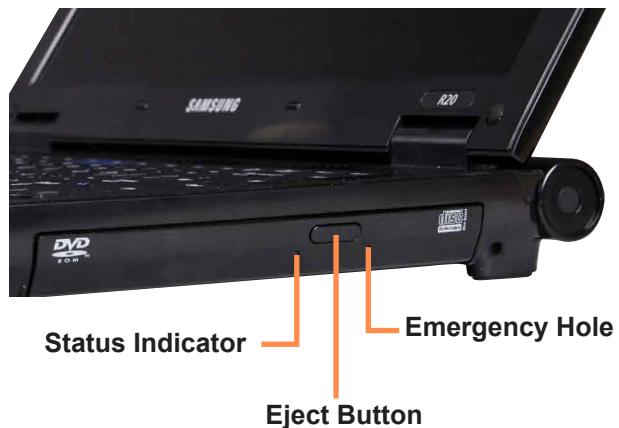


## Caution

- Do not insert a cracked or scratched CD.  
Otherwise, the CD may break and damage the optical disk drive when the CD rotates at a high speed.
- When you clean a CD or DVD title, wipe with a soft cloth from inside to outside.
- Do not eject a CD when the CD operating LED is on.

## Inserting and Ejecting a CD

- 1 Click the **Eject** button of the optical disk drive at the side of the computer.



**2** When the CD tray pops out, insert a CD or DVD until it clicks.



**3** Push the CD tray inward until it clicks.  
The CD drive status indicator is turned on.



**Note**

- A CD drive's reading and writing speed may differ depending on the condition and type of the media.
- To eject a CD when the CD drive does not work or the computer is off, place the end of a paper clip (—) into the Emergency Hole until the CD tray is ejected.

## Burning a CD

If your computer has a writable CD drive, you can write data onto a CD or DVD or burn an audio CD.

**CyberLink DVD Solution** is supplied with the **System Software Media** (or an additional CD) so that you can burn a CD using the program.

Install the provided software and use the software functions referring to the software help.

# Multi Card Slot

Using the multi card slot, you can read and write data to a Memory Stick, Memory Stick Pro, SD card, MMC and xD card.

You can use a card as a removable disk and conveniently exchange data with digital devices such as a digital camera, digital camcorder, MP3, etc.



## Before You Start!

- A multi card slot is optional and is provided for some models only.
- You have to additionally purchase a multi card with the necessary capacity depending on your requirements.
- You can use a multi card just like any data storage device. A copyright protection function is not supported.
- Since you can lose a card when moving the computer, keep the card separately.

## Supported Cards



Memory Stick



Memory Stick Pro



SD Card



MMC



xD Card

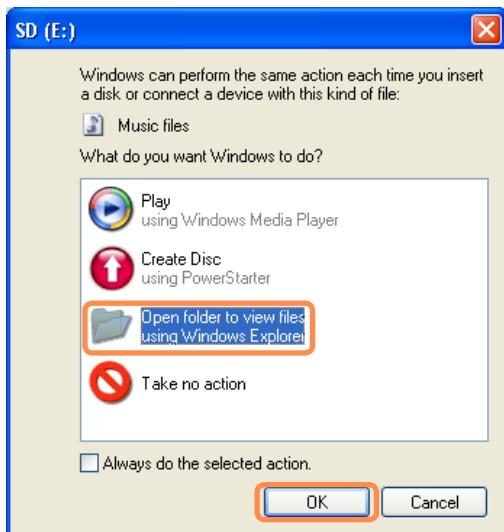
## To Insert and Use a Memory Card

1 Insert a card into the slot according to the directions printed on the slot.

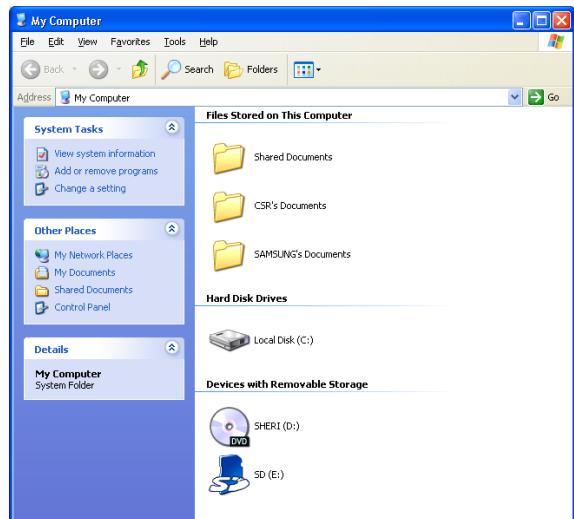


Example) SD Card

2 Click **Start > My Computer**. The inserted memory card is displayed.



3 You can save, move and delete data by double-clicking the corresponding drive.



The device name of the card drive may differ depending on your computer model.

Since you can only use the card after formatting it, if it is not formatted, format the card referring to the descriptions of "To format a memory card".  p. 51



### Using a Memory Stick Duo, Mini SD and RS-MMC

Since the above cards are too small, you cannot insert the cards into the slot directly.

Insert the card into a dedicated adapter(available from most electronic retailers) and then insert the adapter into the multi card slot.

Due to compatibility issues, some adapters may not properly recognize Memory Stick Duo cards. Please check with the vendor of the adapter for compatibility issues.

## To remove a memory card

**1** Push the tip of the card lightly.

**2** If the card pops up with a clicking sound, remove the card.

## To format a memory card

You have to format a card first to use it.



**Caution**

Formatting a card deletes all data saved on the card. If the card includes data, backup the data before formatting it.

**1** Click **Start > My computer**.

**2** Right-click over a card drive with the touchpad and select **Format**.

**3** Click **Start** to the formatting.



**Caution**

- To use a card to exchange data with a digital device such as a digital camera, formatting the data using the digital device is recommended.
- When you try to use a card, which is formatted in the computer, in another digital device, you may have to format the card again in the device.
- You cannot format, write or delete data from a Memory Stick, Memory Stick Pro, SD, or SMC card with a write protection tab when it is in the Lock position.
- Inserting and removing a memory card repeatedly may damage the memory card.
- If you remove the multi memory card using the **Safely Remove Hardware** icon ( ) in the Taskbar, you will not be able to use the multi memory card. To use the multi memory card again, restart the computer.

# PCI ExpressCard Slot

You can use PCI Express cards using this slot.

The PCI ExpressCard slot can be regarded as the next generation PCMCIA card specification and supports LAN, TV Tuner and Sound cards. This computer's slot supports the Express Card/34 and Express Card/54 specifications.



## Before You Start!

- Remove the dummy card installed to protect the slot first. Lightly push the dummy card of the slot. The dummy card pops up. Eject the dummy card.
- This slot is a PCI ExpressCard slot. You cannot connect a PCMCIA card here.

## To insert a card

- Insert a card into the slot on the side of the computer.



- If you insert a card into the slot, Windows recognizes the card automatically or a message telling you to install a driver appears. If the card is not automatically recognized, install the device driver supplied with the card.



### Note

If a window asking whether you want to scan and change appears, click on **Continue Without Scan**. This will proceed to Step 2 above.

## To remove a card

- Double-click the Safely Remove Hardware icon ( ) on the taskbar.
- Select the card to be removed and click **Stop**.
- If the **Stop a Hardware device** window appears, click the **OK** button.
- Push the card in the slot lightly. Then the **card** pops up.
- Eject the card.

# Connecting a Monitor

Using an external display device is useful when you are giving a presentation or watching a video or movie through your monitor.

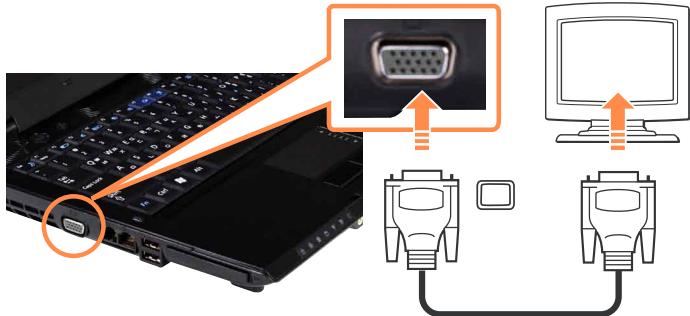


## Before You Start!

You have to buy a connection cable additionally.

## Connecting a Monitor

Connect the monitor to the Monitor port.



### Note

You can also connect a TV or projector supporting a monitor port (15-pin, D-Sub).

## Viewing Through a Monitor

You can switch the display device using the shortcut key.

## Switching the Display Device using the Shortcut Key

Press the **Fn** + key combination once. Then the **Easy Display Manager** screen appears in which you can select a display device.

Whenever you press the key while holding down the **Fn** key, the selected option is changed.



### :: LCD+CRT DualView ::

## Example) Selecting LCD+CRT Dual View



### Note

**LCD**: Notebook Screen

**CRT**: External Monitor Screen

**LCD+CRT Clone** : Notebook+ External Monitor Screen

**LCD+CRT DualView**: Notebook+ External Monitor Screen in Dual View

### What is Dual View?

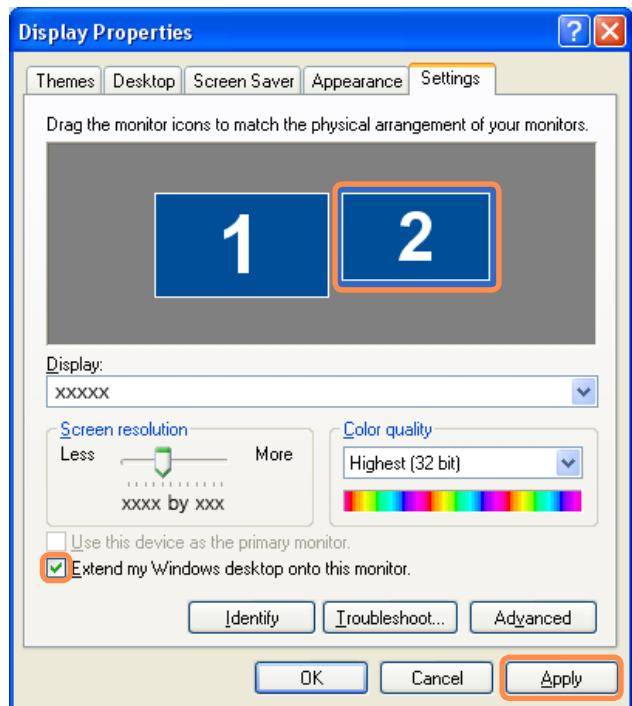
Dual View is a function that enables you to view a computer screen over two display devices. It is convenient when you need a wide screen.

## Using Dual View to View Extended Screen

Dual View is a function that enables you to view a computer screen over two display devices. This is convenient when needing a wide screen for work. In Dual View mode, you can select the screen resolution and colour quality for each display device, as if there were two separate graphics cards.

- 1 Connect the external display device (e.g. a monitor or a projector) to the corresponding port of the system. To connect a TV, connect the TV to the TV output port of the system.
- 2 Press touchpad right button on the desktop, click **Properties**, and then click the Settings tab.

- 3 Click the monitor 2 icon, select the **Extend my Windows desktop onto this monitor** check box, and then click **Apply**.



**4** When the configuration is complete, click **Identify** on the left side of Troubleshoot. The primary display device(the LCD) is indicated as **1**, and the secondary display device is indicated as **2**. Now you can view the screen through two monitors.



**1 : Primary**



**2 : Secondary**

## Deactivating Dual View Mode

Click the monitor **2** icon, clear the **Extend my Windows desktop onto this monitor** check box, and then click **Apply**.



### To move a window between display devices in Dual View mode

Click the title bar of the window in the primary display device (1, the LCD), and drag it to the secondary display device (2). The window is moved to the secondary display device.



- When you use Dual View, configuring the LCD as the 'Primary' monitor is recommended.
- If the screen of the secondary display device is displayed at 640x480 pixels, with 256 colours, change the settings to the desired screen resolution and colour quality in the [Display Properties] dialog box.

# Adjusting the Volume

You can adjust the volume using the keyboard and the volume control program.

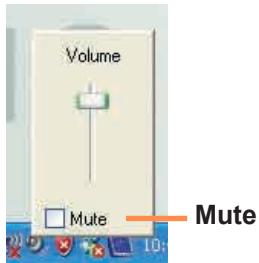
## Adjusting the Volume using the Keyboard

Press the **Fn** + (  ) key combination or **Fn** + (  ) key combination to adjust the volume.

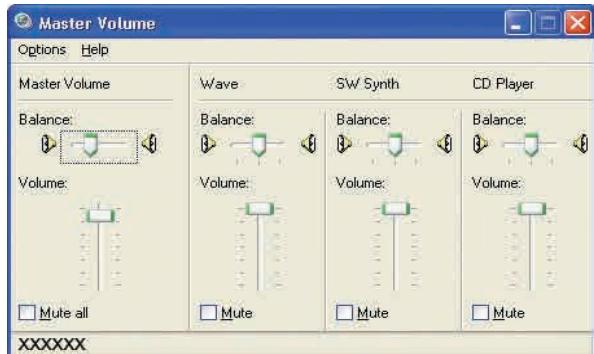
Press the **Fn** + (  ) key combination to turn the volume on or off.

## Adjusting the Volume using the Volume Adjustment Program

Click the **Volume** icon (  ) on the taskbar and slide the volume control bar to adjust the volume.



For advanced volume control options, double-click the **Volume** icon(  ), and adjust the volume level in the volume control program.



### Caution

When you turn the system on, a booting noise may occur.

## Using EDS

Enables listening to surround sound using stereo speakers.

To listen to more stereophonic sound, click **Start** > **All Programs** > **Samsung** > **Samsung EDS** > **Samsung EDS** or double-click the **EDS** icon (  ) on the Taskbar and select a surround mode from the pop-up menu.

To disable EDS, select Enhanced Digital Sound OFF from the pop-up menu.



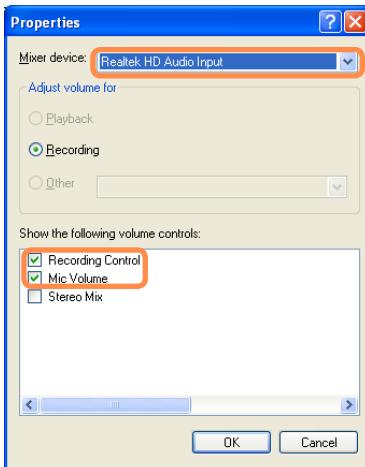
### Note

To disable EDS, select **Enhanced Digital Sound OFF** from the pop-up menu.

## Using Recorders

This section describes how to perform recording on a computer by using Windows Recorder.

- 1 Connect a microphone to the microphone jack.
- 2 Click **Start > Control Panel > Sounds, Speech, and Audio Devices > Sounds and Audio Devices**.
- 3 Click **Advanced** from Volume and then, click **Options > Properties**.
- 4 Select **Realtek HD Audio input** from the mixer device to select **Recording** from **Adjust Volume for**.



- 5 Select **Recording Control** and **Mic in Volume** from **Show the following volume controls** and click **OK**.

- 6 When **Recording Control** window appears, make sure all the Mute boxes are unchecked. Increase the **recording** volume to increase the recording sensitivity and close the window.
- 7 Click **Start > All Programs > Accessories > Entertainment > Sound Recorder**.
- 8 Click the **Record** button to perform recording.



 The default recording duration of Windows is 60 seconds. Download a dedicated recording program from the Internet to record audio data for a long time.

# Chapter 3.

# Using Microsoft Windows XP



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The screen shots used in this chapter may differ from actual screens depending on the Windows XP version and model.

# About Microsoft Windows XP

Microsoft Windows XP (hereinafter referred to as Windows) is the basic operating system for computers. You should know how to use Windows in order to use your computer properly. Use **Tour Windows XP** as well as **Help and Support** to learn about how to use Windows.

## Tour Windows XP

Tour Windows XP introduces the basic features and characteristics of Windows.

Click **Start > Tour Windows XP**.

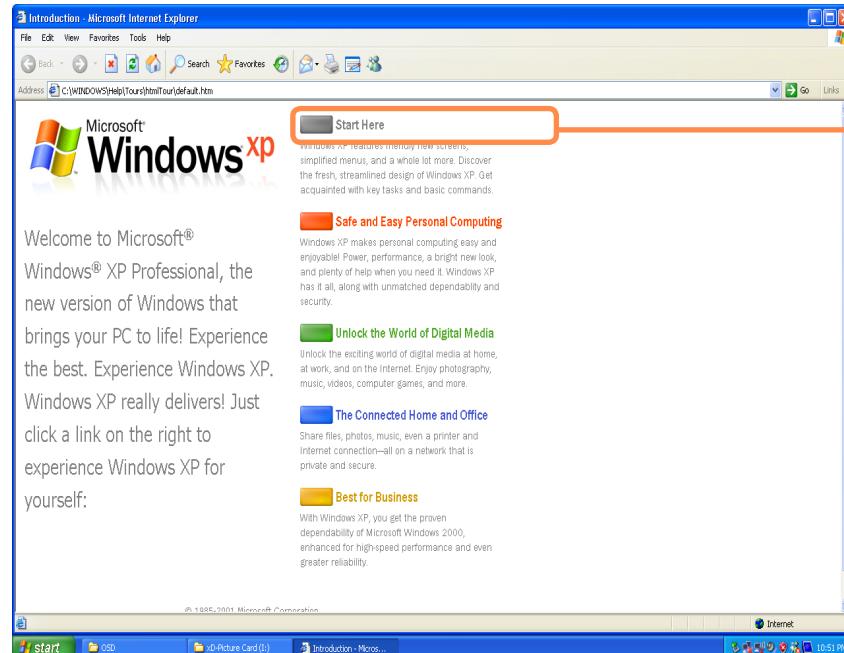
Or, click **Start > All Programs > Accessories > Tour Windows XP**.

Click the title at the right to view the description of the Windows features.



The screen layout may differ depending on the computer model and the operating system.

### Note



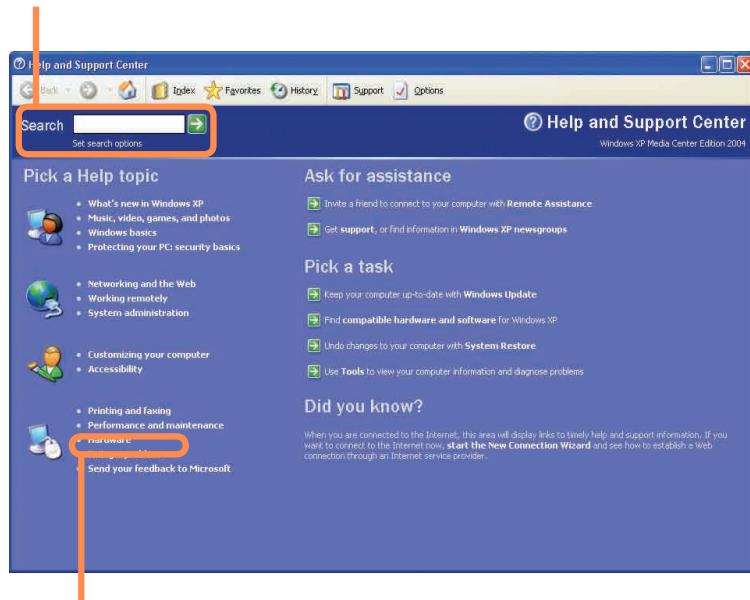
Click the title.

## Help and Support

Help and Support allows you to view the features and usage of Windows. Also, it allows you to search the information you want by entering a search keyword.

Click **Start > Help and Support**.

**Search:** Enter a search keyword to view the Help.



**Fixing a problem:** If a problem occurs, you can get help.



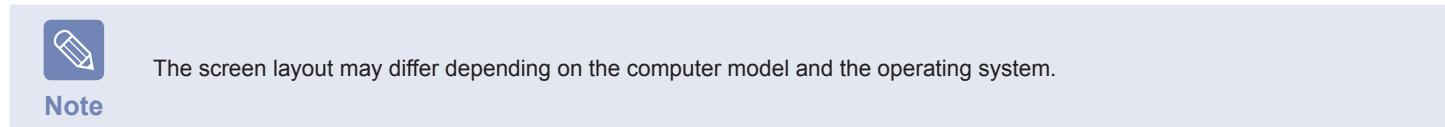
**How to Change Desktop (Background Picture)**

**What's new in Windows XP > Windows XP articles : Walkthrough ways to use your PC.** After clicking **Walkthrough : Personalize your PC**, you can view the way to change the background picture on **Customize Desktop**.

# Windows XP Screen Layout

## Desktop

If you turn on the computer, the Desktop will appear. The Desktop is the work space (screen) of a computer and is configured as follows:



### Shortcut Icons

You can launch programs by clicking the shortcut icons on the Desktop.



### Start Menu

The menu from which you can launch programs.



### Start button

Press the start button. The Start menu appears.

### Taskbar

Currently running programs are displayed here.

### Recycle Bin

You can drop useless files and folders here.

### Language Bar

Switches text input language.

### System Tray with Clock

Shows some running program icons. Icons not being used are hidden. If you click the arrow mark on the left, you can view hidden icons.

## Start Menu

The menu from which you can launch programs.

Click **Start**. The Start menu appears.

Alternatively, press the **Windows** key (  ) on the keyboard.



---

**My Computer**  Displays the contents of the hard disk, the CD-ROM drive, the network drive(s), and floppy disks. It can also be used to search and open files and folders.

---

**Control Panel**  Enables users to configure settings on the computer.

---

**Help and Support**  Provides on-line help, information on Windows and troubleshooting.

---

**Search**  Enables users to search for information in files or the Internet.

---

**Run**  Run programs or documents.

## Window

A window is a basic foundation for operating your computer. For instance, a window of your computer is configured as follows:

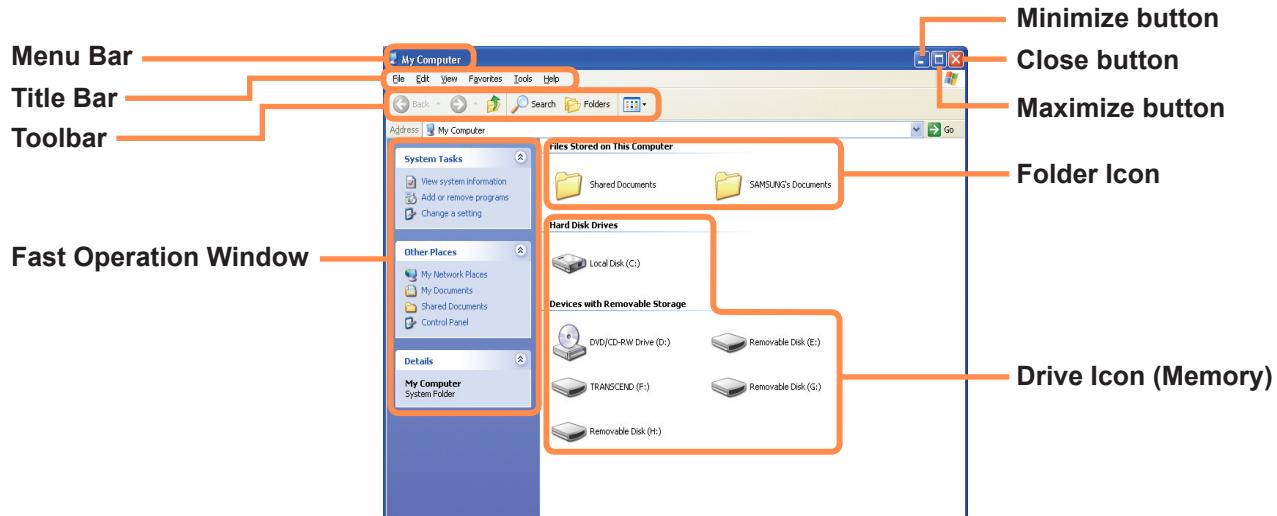
Click **Start > My Computer**.



Displayed menus and names may be varied.

Double-click the **Local Disk**, which is a hard disk drive, to view the folders and files saved in your computer.

If any folder or file is not shown, click **Show Folder Contents**.



### What is a Drive?

A drive is a storage device that can read or write data such as folders and files.

### What is a Folder?

A folder is just like a cabinet that keeps files or folders. You can keep files or folders of similar kinds in a folder.

### What is a File?

A file is the minimum unit of materials created by using a program and is also called data.

### How to View the Entire Drive Structure

Click the folder icon from the Toolbar to view the drive structure.

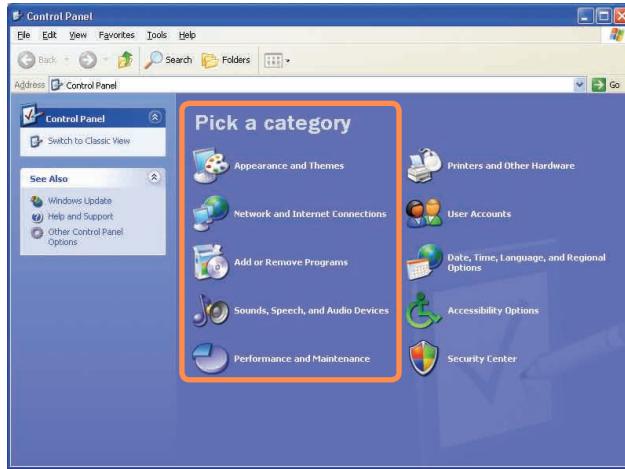
Click the icon again to return to the Fast Operation window.

# Control Panel

The Control Panel has a group of tools that enable to configure the Windows-related settings.

## Running Control Panel

Click **Start > Control Panel**.

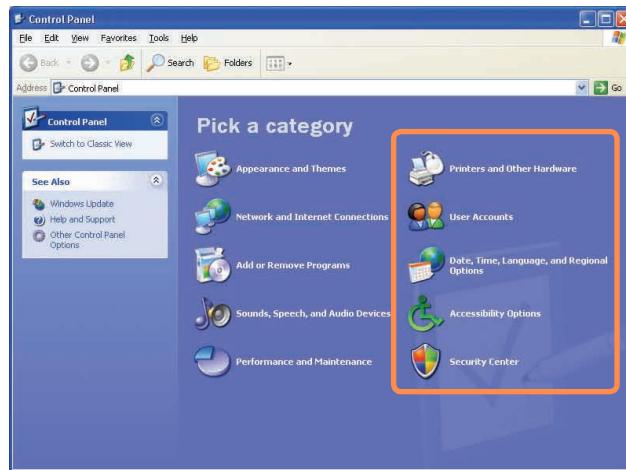


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<b>Appearance and Themes</b>	 Change the appearance of desktop items, apply a theme or screen saver to your computer, or customize the Start menu and Taskbar.
<b>Network and Internet Connections</b>	 Connect to the Internet, create a home or small office network, configure network settings to work from home, or change modem, phone, and Internet settings.
<b>Add or Remove Programs</b>	 Install or remove programs and Windows components.
<b>Sounds, Speech, and Audio Devices</b>	 Change the entire sound scheme or individual sounds made by your computer, or configures the settings for your speakers and recording devices.
<b>Performance and Maintenance</b>	 Schedule regular maintenance checks, increase space on your hard disk, or configure energy-saving settings.

---

Click **Start > Control Panel**.



---

#### Printers and Other Hardware



Change the settings for your printer, keyboard, mouse, camera, and other hardware.

---

#### User Accounts



Change user account settings, passwords, and pictures.

---

#### Date, Time, Language, and Regional Options



Change the date, time, and time zone for your computer, the language to use, and the way numbers, currencies, dates, and times are displayed.

---

#### Accessibility Options



Adjust your computer settings for vision, hearing, and mobility.

---

#### Security Center



View your current security status and access important settings to help protect your PC.

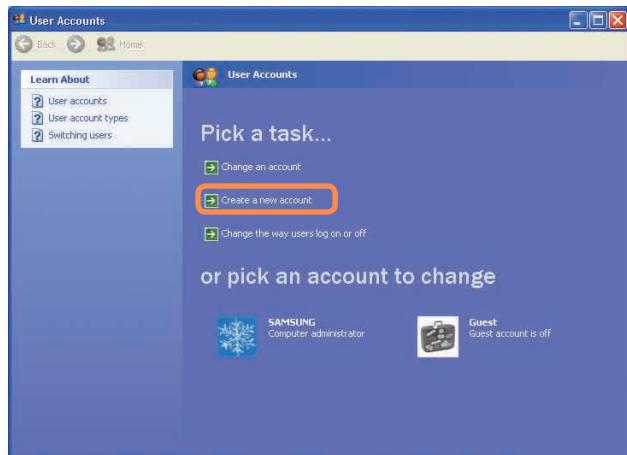
## User Account

Windows XP allows to set multiple users with accounts. This section describes how to add a user account and to switch a it.

### How to Add a User Account

1 Click **Start > Control Panel**.

2 Click **User Account** and **Create a new Account** in sequence.

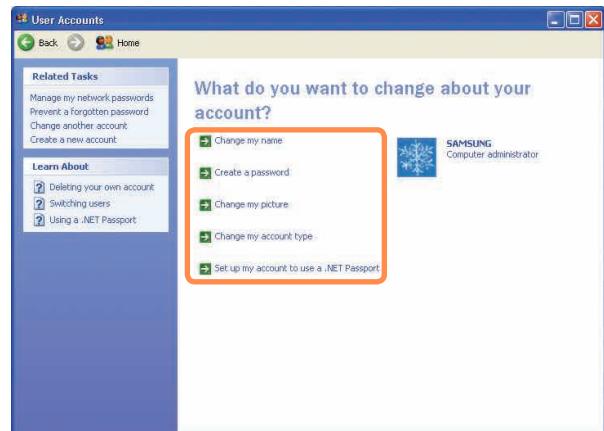


3 Enter your name and click **Next**.

4 Select an account type and click the **Create Account** button. Then, check the created account from the User Account window.

5 Click the target account and change the user account information.

You can change the account name, password, account type, and picture.



## To Delete User Account

---

**1** Click **Start > Control Panel > User Account**.

**2** Select the user account to be deleted and click **Delete Account**.



The administrator account cannot be deleted. It can only be renamed or disabled.

## How to Switch a User

---

**1** Click **Start > Logoff**.

**2** Click **Switch User**.



**3** Click the user name to be switched from the Welcome screen. Then you can log on with a new user name.

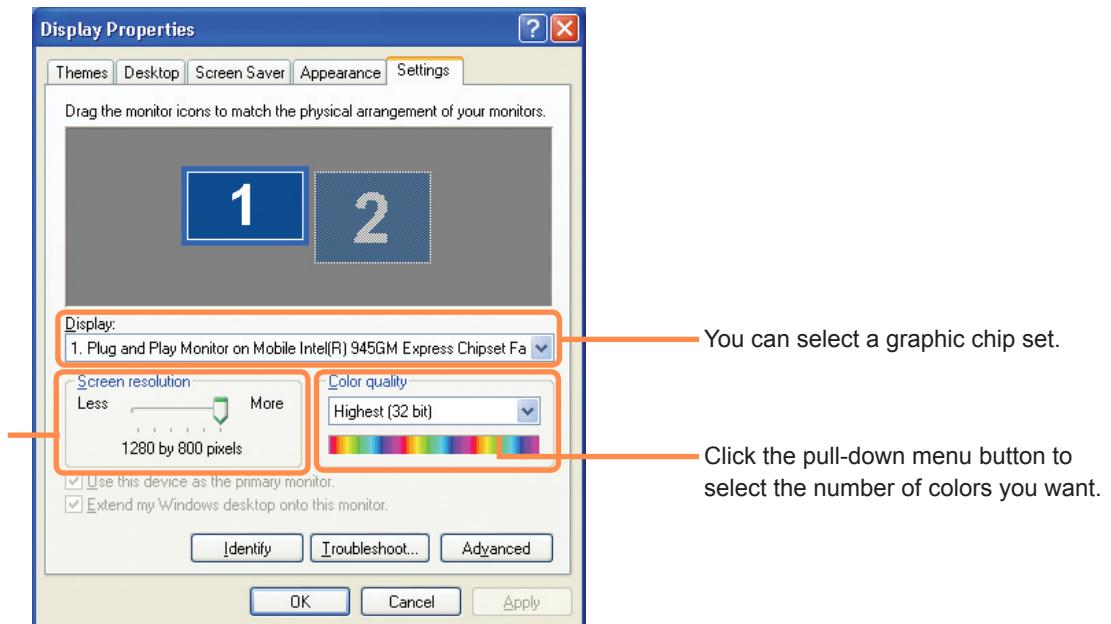
## Changing Resolution and Color

A resolution is the number of pixels displayed on the screen. If you set the resolution to a higher value, items on the screen will be displayed smaller and the screen looks wider than the previous. As color quality gets higher, more colors can be represented.

- 1 Click Start > Control Panel > Appearance and Themes > Change the screen resolution.

Move the slider bar to set the resolution.

- 2 Click **Settings** and change the resolution and color quality. Then, click **OK**.



It is recommended to set the resolution and color quality depending on the LCD type of your computer as the following:

LCD Type	Resolution	Color Quality
WXGA	1280 x 800	Strongest (32-bit)

# Chapter 4.

# Using the Network



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# Wired Network

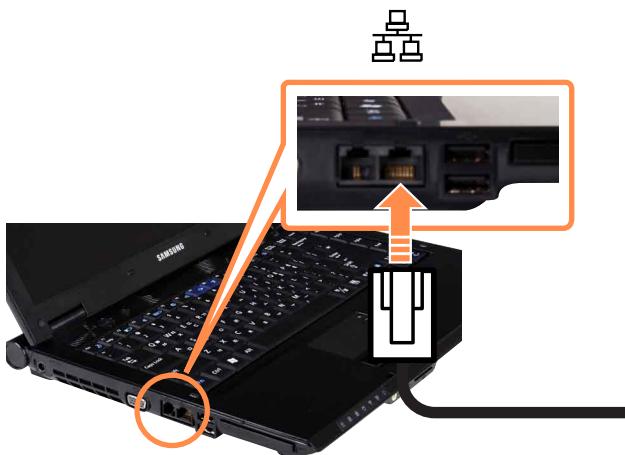
A wired network is a network environment used for a company network or broadband internet connection at home.



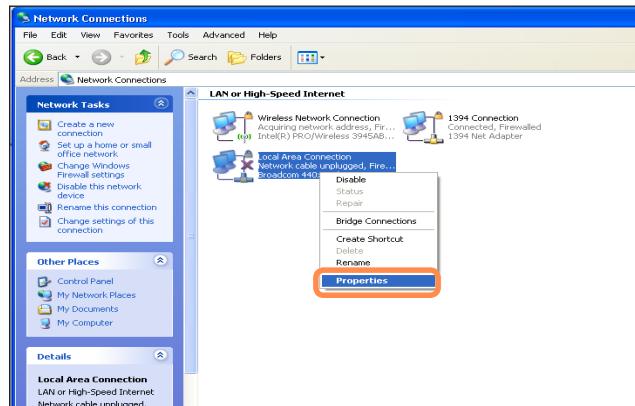
## Before You Start!

You can also configure the network settings using the **Samsung Network Manager**. [p. 77](#)

**1** Connect a LAN cable to the computer's LAN port.



**4** Select **Local Area Connection** and click the right button of the touch pad and select **Properties**.



**2** Click **Start > Control Panel > Network and Internet Connections > Network Connection**.

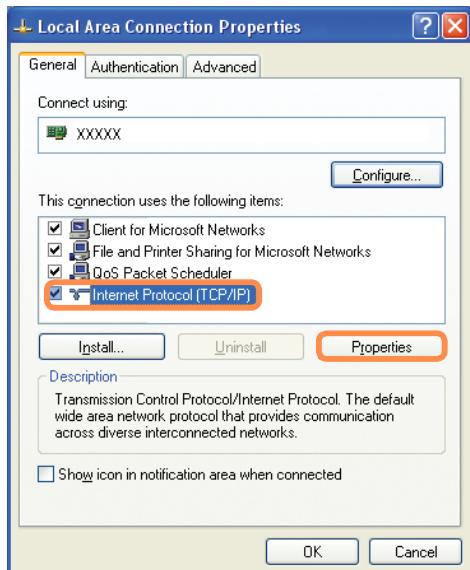
**3** Click **Manage Network Connections** from the left pane.

**5** Click **General** tab and select a LAN driver from **Connect using:**. Select **Internet Protocol(TCP/IP)** and click **Properties**.

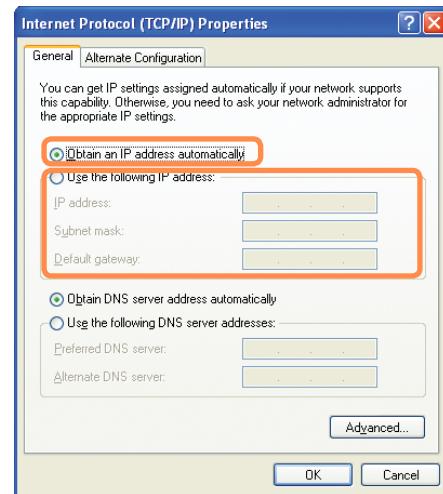


The displayed LAN driver may vary depending on the LAN device type.

Click **Install** to add a network component as shown in the figure below: You can add a client, a service, or a protocol.



**6** Configure IP settings.  
Select **Obtain an IP address automatically** when using DHCP. If you use a static IP, select **Use the following IP address** and enter the values.



If the IP of your computer is not automatically assigned, contact the network administrator.

**7** If all settings are made, click **OK**. Now the network configuration is finished.

## Using both DHCP and a fixed IP simultaneously

---

Using the **Alternate Configuration** providing by Windows XP, you can set both automatic and fixed IP addresses and then you can select to use either of them to connect to the Internet.

- 1** Click **Start > Control Panel > Network and Internet Connections > Network Connection > Local Area Connection** by using the right button of the touch pad and click **Properties**.
- 2** Select **Internet Protocol (TCP/IP)** and click **Properties**.
- 3** Select the **Alternate Configuration** tab, select **User configured** and fill in the fields.
- 4** When the setting completes, click **OK**.

# Wireless Network

A wireless network allows computers to share resources or an internet connection without using LAN cables between them.



## Before Use!

- This description is applied only to the models equipped with wireless LAN cards or devices. You can set a wireless network by using **Samsung Network Manager** as well. ☰ p. 77

A wireless LAN device is optional when purchasing. Click a symbol, +, from **Start > Control Panel > Performance and Maintenance > System > Hardware Tab > Device Manager > Network Adapter** to check the device type.

Some of the pictures shown in this description may vary depending on the wireless LAN device.

- Press the **Fn** +  key and enable the wireless LAN features to use wireless LAN. Once the wireless LAN is enabled, the wireless LED  turns on.

## Types of Wireless LAN Connections

The types of wireless LAN connections are as follows. The following describes how to use the wireless LAN based on AP connections.

### ■ AP Connections

You can connect to the Internet or a computer on the network by connecting to AP on an AP-enabled network.



### What is Access Point (AP)?

AP is a network device that connects wired LAN to wireless LAN and corresponds to the wireless hub of a wired network. Also, AP allows you to connect more than one computer where wireless LAN is enabled.

### ■ Small Office Network

The small office network interconnects computers where wireless LAN is enabled wirelessly and is called Peer-to-Peer (or Ad Hoc). This method enables the configuration of a small office network in one computer. Then, another computer is connected to the computer wirelessly for communications.

For more information on how to establish connections, see the information from **Start > Help and Support > Networking and Web**.

When you use Ad-Hoc, you have to change the McAfee Firewall settings. ☰ p. 156

## Connecting to Wireless LAN

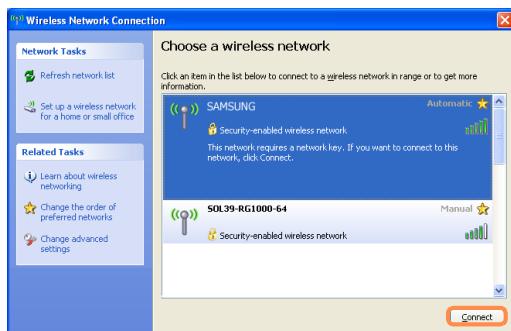
If an AP exists near your location, you can easily connect to wireless LAN in the method provided by Windows XP. If you use the program provided by a wireless LAN card provider, connect to wireless LAN after seeing page 76 of this document.

The following description is based on Windows XP Service Pack 2; thus, the pictures may vary.

- 1 Click the **Wireless Network Connection** icon (  ) from the Taskbar using the right button of the touch pad. Then, click **View Available Wireless Networks**.



- 2 Select an AP to be connected and click **Connect**. If a network key is set in the AP, the network key input window will appear. Enter the network key in the input window and click **OK**.



For a network key, contact the network administrator.

- 3 Once **Connected to AP** is displayed, you can use a wireless network.

## To check the network connections

Place the mouse on the **Wireless Network Connection** icon (  ) from the Taskbar. Then, the status will appear.



## Connecting to computer-to-computer networks (peer-to-peer or ad hoc)

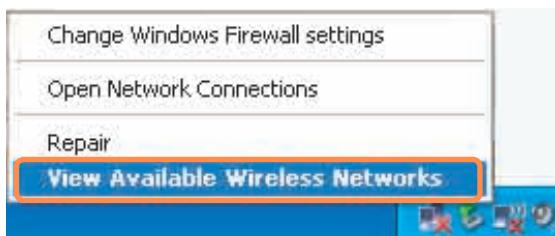
In computer-to-computer wireless networks, you can wirelessly connect 2 or more computers that have wireless LAN modules. Using this method, a computer that is not connected to the Internet can share the Internet by accessing another computer connected to the Internet. (Refer to “Sharing Internet Access” on page 81.)

You can connect by completing the following steps:

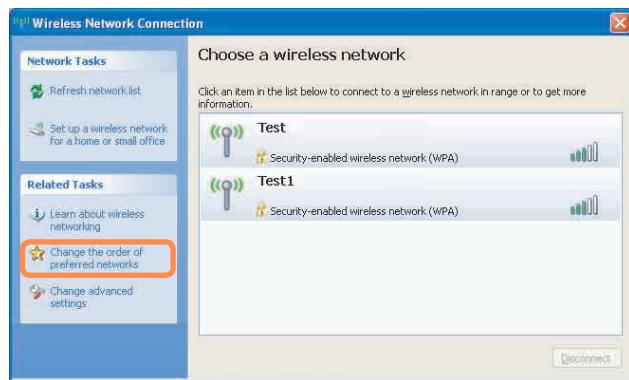
- Step 1. Set up a computer-to-computer network on a computer.
- Step 2. Connect to the configured computer from other computers.

### Step 1. Setting up a computer-to-computer network

1 Right-click on the **Wireless Network Connection** (  ) icon on the taskbar, and select **View Available Wireless Networks**.



2 Click **Change the order of Preferred Networks**.

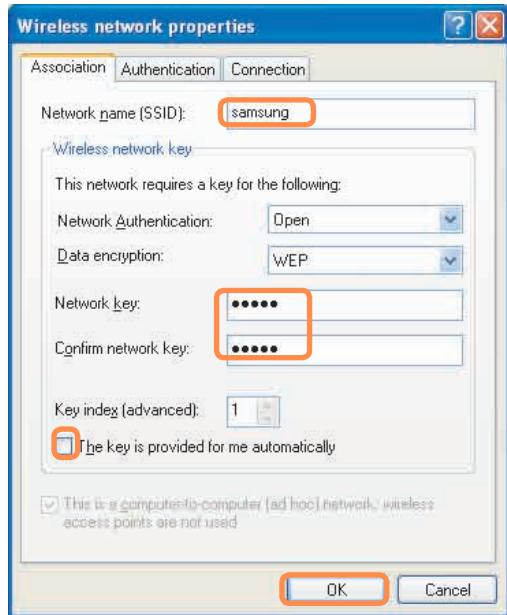


3 On the Wireless Network tab, click **Advanced**.

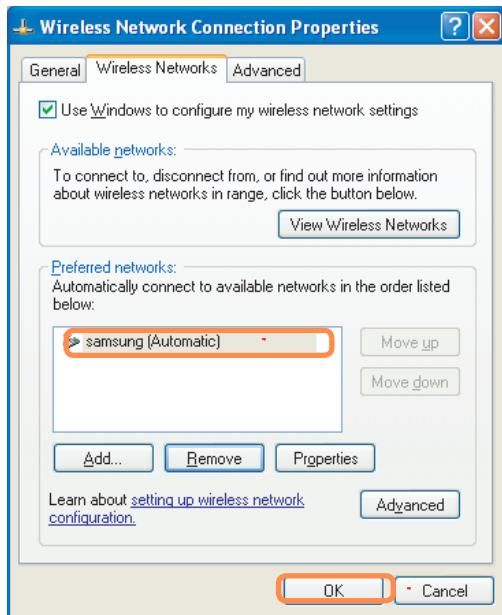
4 Clear ‘Automatically connect to non-default network’ check box, if it is selected. Select ‘Computer-to-computer (ad hoc) networks only’, and click **Close**.

5 In the Wireless Networks tab, click **Add**.

6 Enter the network name (e.g. samsung), and unselect 'The key is provided for me automatically'. Enter the encryption key in the Network key field, and click OK.



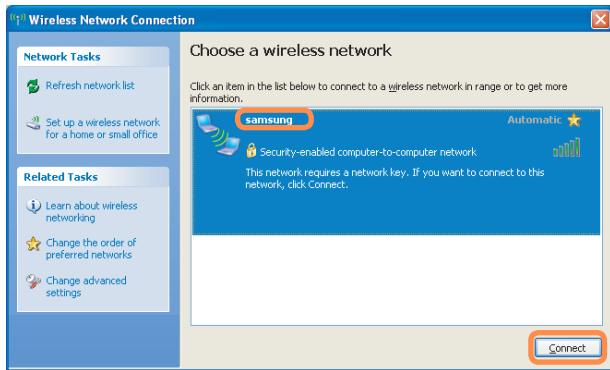
7 Check that the configured network name (e.g. samsung) is in the 'Preferred networks' item, and click OK.



To prevent a network connection from an unauthorized user, it would be better to configure a network key (encryption key). A network key consists of 5 ~ 13 alphanumeric characters (e.g. magic), or of 10 ~ 26 hexadecimal numbers (a hexadecimal number is represented by numbers '0' to '9' or letters 'a' to 'f').

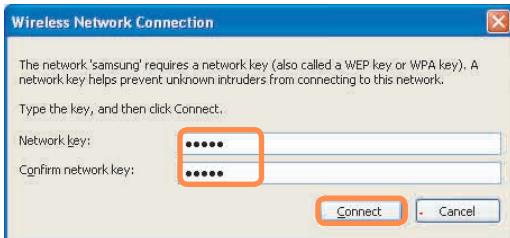
## Step 2. Connecting to the configured computer

1 Right-click on the **Wireless Network Connection** (  ) icon on the taskbar, and select **View Available Wireless Networks**.



2 Select the wireless network name (e.g. **samsung**) specified in "Connecting to computer-to-computer networks (peer-to-peer or ad hoc)" on page 73, and click **Connect**.

3 Enter a cryptographic key in the network key box and click **Connect**.



 If the network key is not configured in "Connecting to computer-to-computer networks (peer-to-peer or ad hoc)" on page 73, just click **Connect**, without any keystrokes.

When connected to the wireless network, the system displays **Connected** in the selected network of the Network Connection window.

 **Checking the connection status** Move the mouse pointer over the Wireless Network Connection (  ) icon on the taskbar, and the connection status is displayed.



## Wireless Network Setup Using the Wireless LAN Setup Program

The procedures to connect to an access point using a wireless LAN configuration program are described. Since the wireless LAN configuration program is included in the System Software Media, the user has to install the program.

### For Intel Wireless LAN card (Optional)

**1** Insert the **System Software Media** into the CD drive and install the wireless LAN configuration program (PROSet).

**2** Double-click the **wireless LAN program** (  ) icon on the taskbar. (Or, click **Start > All Programs > Intel PROSet Wireless > Intel PROSet Wireless**.)  
To connect to an access point or existing computer-to-computer (Ad Hoc) network refer to the following procedures.

**3** In Available Networks, click on **Refresh**.

**4** Select the name of desired access point or computer-to-computer network to connect from the searched available networks list, and click **Configure**.



#### Note

If your desired network does not appear, click **Refresh**.

An access point is represented by the (  ) icon, and a computer-to-computer network is represented by the (  ) icon. An (  ) icon is displayed in front of an access point or a computer-to-computer network with configured security settings.

**5** Enter **Profile Name** and click **Next**.

**6** In the Search Security Settings window, the wireless network security search message will appear. Click **Next**.

**7** Enter the **network authentication, data encryption (WEP), encryption level, key index, and wireless security password** configured for the target access point or computer-to-computer network in the Security Settings window, and click **Next**.



#### Note

The network authentication, data encryption (WEP), key index, and password of a access point are configured in the access point management program.

For information on the security information, check the security settings of the access point or ask your wireless network administrator.

To connect to an existing computer-to-computer (Ad Hoc) network, enter the password configured when creating the computer-to-computer network for the first time. You do not need to enter network authentication or key index.



#### Note

#### Security Settings

- **Network authentication:** The network authentication option includes Open System and Shared Key. When you select Open System, no authentication is applied (however, encryption is supported). When you select Shared Key, a WEP key is used for authentication. The default setting is Open System.
- **Data encryption (WEP):** The IEEE 802.11 WEP (Wired Equivalent Privacy) standard defines two levels of encryption, a 64-bit key (this is sometimes represented by 40bits) and a 128-bit key.
- **Key index:** Select the current encryption key index used by the access point out of 1 to 4.
- **To use encryption key:** Click Use pass phrase to activate, and enter 5 (for 64-bit) or 13 (for 128-bit) alphanumeric characters (represented by 0-9, a-z, or A-Z).

**8** The Done window appears, click **OK**. When a wireless connection to an access point is established, the connection icon (wi-fi) appears in front of the name of the connected profile.

## For Atheros Wireless LAN card (Optional)

**1** Insert the **System Software Media** into the CD drive and install the wireless LAN configuration program (ACU: Atheros Client Utility).

Select **System Software Media > User Installation > Wireless LAN Driver ReadMe**, click **ReadMe** and install the program according to the instructions.

**2** Right-click the **wireless LAN configuration program** (  ) on the Taskbar and select **Open Atheros Client Utility**.

Alternatively, click **Start > All Programs > Atheros Client Utility > Atheros Client Utility**.

**3** In the **Profile Management** tab, click **Scan** to search for available wireless networks.

**4** Select the name of an access point (AP) to connect to from the network name (SSID) and then click **Activate**.

**5** Enter a profile name to be used for the connection and select the security settings of the AP to be connected to in the **Security** tab.



The network authentication, encryption type and password of an access point are configured through the access point management program. For the security information, check the security settings of an access point or ask your wireless network administrator.

**See the following when setting a WEP key.**

- **Data encryption (WEP):** The IEEE 802.11 WEP (Wired Equivalent Privacy) standard defines two levels of encryption, a 64-bit key (this is sometimes represented by 40bits) and a 128-bit key. When connecting to an Atheros access point, you can use the 152-bit key (32 hexadecimal digits or 16 ASCII characters).
- **Key index:** Select the current encryption key index used by the access point from between 1 to 4.
- **Using an encryption key:** Enter 5 (for 64-bit) or 13 (for 128-bit) alphaNumeric characters (represented by 0-9, a-z, or A-Z).

**6** Click **OK** and then **OK** again in the Profile Management window.

If the profile is created, the profile appears in the list in the **Profile Management** tab and the connection is established using the profile.

# Using Samsung Network Manager

Samsung Network Manager guides you to configuring the network-related settings.

Samsung Network Manager performs the features as shown below:

- **Easy configuration for your network and printer.** ☞ p. 77~79

- **Enabling the movement-free feature.** ☞ p. 80

If you use a computer in different places such as your office and home, Configure network settings in each place. Then, you can select a location and use the computer without giving extra effort for network settings each time.

- **Easy Internet configuration.** ☞ p. 81

Enables the feature that allows two computers to share an Internet using one Internet line.

Sets one computer as the sharing server and the other computer as the client to use the Internet in both computers.

- **Easy check-up for the network connection status.** ☞ p. 85

## Perform Network Settings

You can set up a wired network or wireless network.

When different networks are used in different places, you must set up the network environment for each place. The progress of configuration is displayed while the network is being set up.

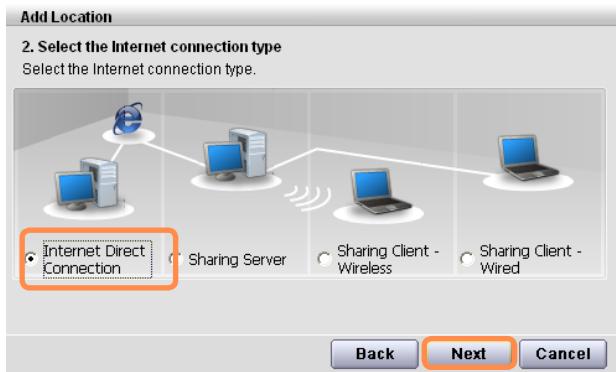
**1** If you use a wired LAN, connect the LAN cable to the wired LAN port. Press the **<Fn>** + (  ) key and enable the wireless LAN features to use wireless LAN. Once the wireless LAN is enabled, the wireless LAN LED turns on.

**2** Click **Start > All Programs > Samsung > Samsung Network Manager > Samsung Network Manager.**

**3** Click **Add.**

**4** Select an icon to choose the network location and enter the location name (for example, "Home") and click **Next**.

**5** Select **Internet Direct Connection** and click **Next**.



**6** Select a device and configure IP settings. Then, click **Next**.



**Choose Device**  
Select between wired LAN and wireless LAN.

#### IP Settings

Contact the network administrator and enter the IP information if the IP is not an automatic IP.

#### Get IP Automatically

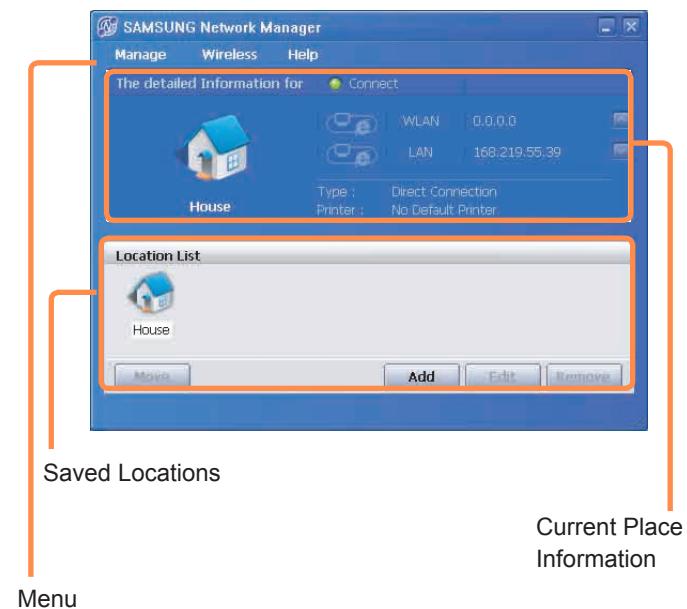
Select this option and perform automatic IP settings if you use DHCP.

7 When the Printer Setting window appears, click **Finish**. To add a printer, click **Add Printer**. The Add Printer Wizard appears. Set up the printer according to the instructions displayed on the screen. When the printer has been added, click the **Show printer** button, select the newly added printer and then click the **Finish** button.



To not add a printer, select **No Default Printer** and then click the **Finish button**. When the network setting is complete, the '**Do you want to move to newly added location now?**' message appears. If you select '**Yes**', the network settings for the added location are applied. When the network settings for the added location are applied, the added place and the corresponding network connection information is displayed in **The detailed Information for window**.

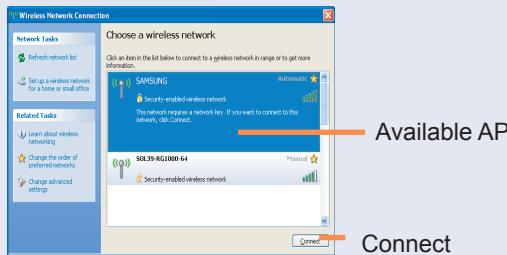
When the network setting is complete, an icon for the added location is created within the Saved Locations window. Now you can use the Internet or add a new network location.





**Wireless LAN AP Connection Procedures** To use a wireless LAN, first connect to a wireless LAN AP and then you can access the network even when moving location. moving location and then you can access the network even when connecting to a wireless LAN AP

1. Right-click over the **Wireless Network Connection** (  ) icon on the Taskbar and click **View Available Wireless Networks**.
2. Click **Search AP** from the **Wireless** menu to search for wireless LAN APs. Select an available wireless network (e.g. SAMSUNG) and click the **Connect** button. For information on available wireless LAN APs, ask your network administrator.



3. The network key (security key) input window appears.
  - If a network key has been set for the wireless LAN AP, enter the network key and click the Connect button. For the network key information, ask your network administrator.
  - If no network key has been set for the wireless LAN AP, click the Connect button without entering the network key.
4. When the computer is connected to the wireless LAN AP, the Connected message will appear on the Wireless Network icon in the Taskbar.

## Using the network after moving location

By setting the network settings (IP address, printer setting, etc.) for each location, you can immediately access the network without performing the network setting procedures regardless of your location.

**1** Run Samsung Network Manager when connected to the Internet.

**2** Select an icon that represents the corresponding location from the Saved Locations window and then click Move.

**3** When the network settings of the selected location are applied, the new location and the network connection information are displayed in The detailed Information for window.

## Sharing Internet Access

Set one computer as the sharing server and another computer as the client for two computers to share an Internet using one Internet line. Once the configuration is complete, you can use the Internet immediately.



If you perform Internet sharing setup by using **Samsung Network Manager**, the program must be installed into both computers.

There are three methods for setting each computer as a sharing server and a client as shown in the table. This document describes how to do so by giving an example to the typical connection method 1 (**Wire+Wireless**).



### Sharing Server (Hereinafter referred to as server)

Computer that is equipped with two LANS and is directly connected to an Internet.



### Sharing Client (Hereinafter referred to as client)

Computer that is not directly connected to the Internet and is able to use the Internet through the sharing server.

### How to Connect the Client to the Server

Connection Type	Network Device of the Server		Network Device of the Client	Check the connections before connecting to the Internet.
	Connection Device to the Internet	Connects to the client.		
Method1	Wired LAN	Wireless LAN	Wireless LAN	It is wireless-to-wireless connection. First turn on the wireless LAN.
Method2	Wireless LAN	Wired LAN	Wired LAN	It is wire-to-wire connection. First use the LAN cable to connect two devices before setting the computer.
Method3	Wired LAN	Wired LAN	Wired LAN	In Method 3, you have to install the wired LAN card for connection.

## How to Set up Sharing Server

Check if the LAN cable is properly connected before setting up the sharing server.

**1** Run **Samsung Network Manager** on the computer that will be used as the sharing server.

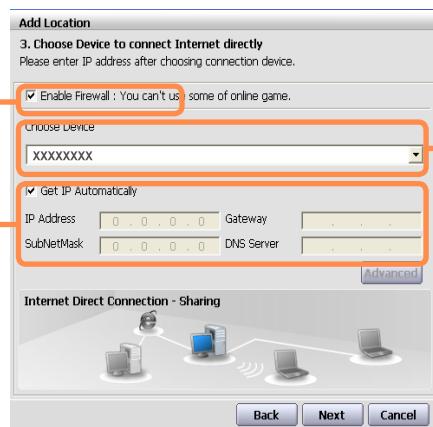
**2** Click **Add**.

**3** Select the icon that shows the network location and enter the location name (for example, Home-Sharing Server) and click **Next**.

**4** Select the sharing server and click **Next**.

**5** Set up the network device to be connected to the external Internet as shown in the figure below and click **Next**.

### Determining whether to use a firewall



IP address setting

Select a network device  
(for example, wired LAN)

**6** Set up the device to be connected to the client as shown in the figure below and click **Next**.



Because the wireless connection name and network key entered in the sharing server must be entered in the client as well, remember them.

**7** Check the settings and click **Next**.

**8** Click **Add Printer** and set up a printer following the instructions in the wizard.

Once printer addition is complete, click **Refresh**. Select the added printer and click **Complete**.



If you don't want to add a printer, just click **Complete** without following the instructions in the wizard.

**9** If the “Do you want to move to newly added location now?” window appears, click **No**.

The added location icon is created and sharing server setup is complete. Set up the sharing client next.

When you use Internet Connection Sharing, you have to change the McAfee Firewall settings.

☞ p.156

## How to Set up the Sharing Client

This description is discussed based on the wireless connection to the sharing server. The sharing server has to be turned on and the wireless LANs in both computers have to be active.

**1** Run **Samsung Network Manager** on a computer that will function as the sharing **client**.

**2** Click **Add**.

**3** Select the icon that shows the network location and enter the location name. Click **Next**.

**4** Select **Sharing Client (Wireless)** and click **Next**.

**5** Enter the values in the **Wireless Connection Name** and **Network Key** fields in the Select Device window and click **Next**.

**6** Check the settings and click **Next**.

**7** Click **Add Printer** and set up a printer following the instructions in the wizard. Once the printer addition is complete, click **Refresh**.  
Select a printer and click **Finish**.



If you don't want to add a printer, just click **Complete** without following the instructions in the wizard.

**8** If the “**Do you want to move to the added location now?**” window appears, click **No**.  
If the icon for the added location appear, it means that the client configuration is complete.  
If you click **Yes**, the computer connects to the sharing server and you can immediately use the Internet.

## To connect to the Internet from the Sharing Client

**1** Check if the sharing server turns on because this is mandatory. If you connect to the sharing server through a wireless LAN, the wireless LAN of the server must be turned on.

**2** Run **Samsung Network Manager** on the sharing client computer.

**3** Click the icon for the location that has been set as the sharing client in the Shared Location window and click **Go**.  
Once a message appears to inform you that moving is complete, you can use the Internet. If the Internet is disconnected during use, click **Wireless** menus > **Reconnect Sharing** in **Samsung Network Manager**. Then, the network will be connected again.

## Checking Network Status

If the network connection is not available, you can easily find the causes by checking the network status.

**1** Run **Samsung Network Manager**.

**2** Click **Diagnose Status** on the **Mngmnt** menu.

**3** The Network Connection Picture window appears.  
If you click **Start**, checking the network will start.

**4** When the diagnosis is complete, out of order devices are marked by the exclamation mark icon. For detailed device status, read the description in the lower part of the window.  
Reconnect and set up the device according to the diagnosis result.



# Connecting with a Modem

The procedures to connect to the Internet via a phone connection are described below.

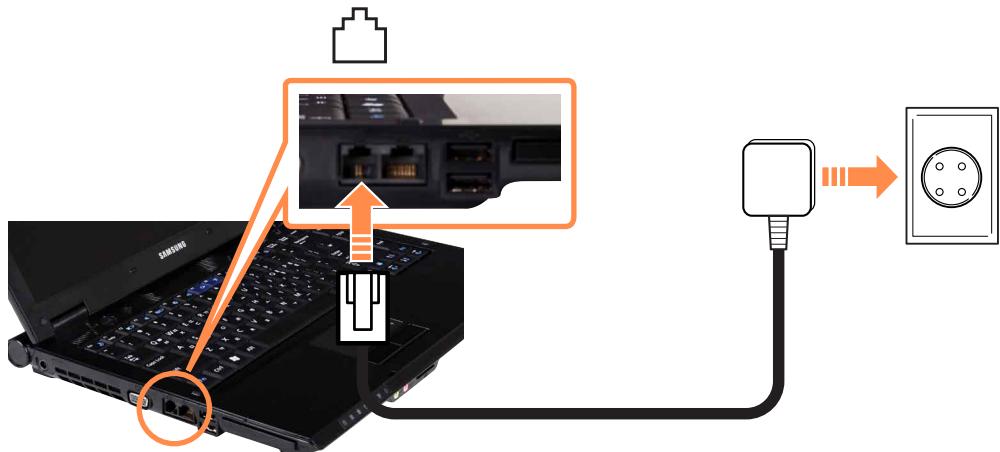


## Before You Start!

- To connect to the Internet, you have to subscribe to an Internet connection service of an Internet service provider (ISP).
- A modem port is optional and provided for some models only.

**1** Connect the phone Cable to the Modem port.

Take care to not connect a digital phone line to the modem port.



**2** Connect to the Internet according to the instructions of your Internet service provider (ISP).



## Note

If the Internet connection is terminated abnormally, the connection is not released and the corresponding cost can be accrued.

# Bluetooth (Optional)

Bluetooth is a wireless communication technology that allows access to devices nearby such as a computer, mobile phone, printer, keyboard or mouse without a cable connection.

Bluetooth enables file transmissions, Internet access, a private area network function, and access to a keyboard, mouse and printer between devices supporting the Bluetooth function without a cable connection.



## Before Use!

- The Bluetooth function is only available between devices supporting Bluetooth (computers, mobile phones, PDAs, printers, etc.), and the function may be restricted depending on the device profile.
- The Bluetooth function is optional and may not be supported depending on your model.
- Compatibility with a Bluetooth device not certified by a Bluetooth certification or logo is not guaranteed.

## Bluetooth Functions

### File Transmission



You can exchange files between 2 Bluetooth devices. You can exchange files with other computers, mobile phones, PDAs, etc.

### Network Access



You can connect to another computer with the Bluetooth function as you access a wireless LAN in Ad-Hoc mode or connect to the Internet through an AP or Internet Connecting Sharing Server.

### Network Access through a Phone Connection



You can connect to the Internet through a Bluetooth mobile phone.

### Data Sync (Synchronization)



You can synchronize the PIMS data (Outlook E-mail address data) with mobile phones, PDAs, notebook computers, etc. supporting Bluetooth.

### Electronic Business Card (Vcard)



You can exchange electronic business cards with mobile phones, PDAs, notebook computers, etc. supporting Bluetooth.

### Sound Output



You can listen to audio from the computer through another Bluetooth device or listen to audio of another Bluetooth device through the computer.

### HID Connections



You can connect a keyboard, mouse, joystick, etc. supporting Bluetooth. For more information about using the Bluetooth function, see the online help of the Bluetooth Device.



For more information about using the Bluetooth function, see the online help of the Bluetooth Device.

## Bluetooth Software Setup

Bluetooth software is installed on computers supporting Bluetooth.

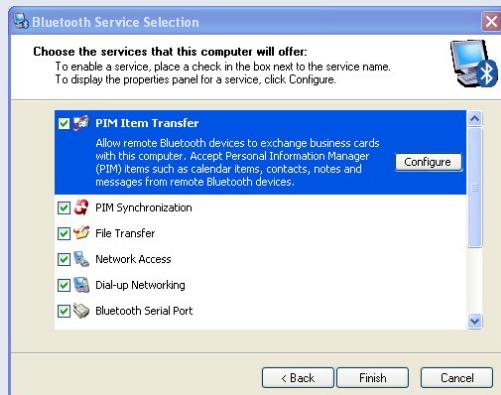
For first time use, set up the Bluetooth software as follows.

1 Double-click **My Bluetooth Places** icon(  ) on the desktop.

2 Click the **Next** button to start setting up.



- In the setting up steps, enter a device name to be displayed in the Bluetooth Manager program. Enter a name in the **Computer Name** field and select **Laptop** for the **Computer Type** field.
- Also, a step appears for selecting the services to be provided by your Bluetooth device for other Bluetooth devices. At this point, the program automatically detects available services and displays them as selected. It is recommended not to change the default selection.



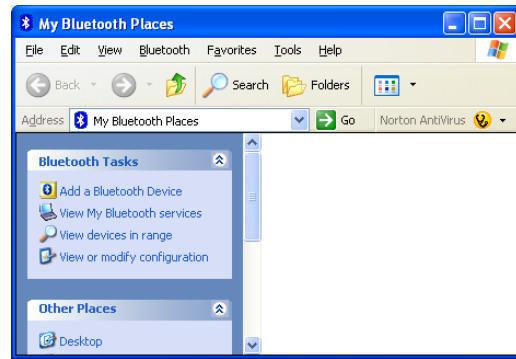
If you change the service settings, the driver necessary for the additionally selected services are installed.

At this point, a warning message may appear informing you that there is no Microsoft logo. Since it does not affect the operation, continue the installation.

**3** If the driver installation is complete, the next step proceeds which searches for nearby Bluetooth devices. Since you do not have to search while setting up, click **Skip** and finish the settings.



**4** If the settings are complete, the My Bluetooth Environment window appears.



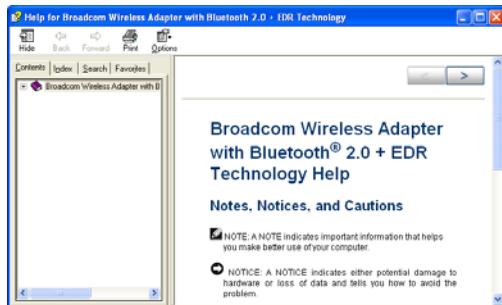
## Using Bluetooth

Describes how to exchange files between computers supporting Bluetooth and how to use other Bluetooth devices.

## Bluetooth Help

Bluetooth Help provides detailed procedures on using Bluetooth functions.

Double-click **My Bluetooth Settings** on the **Desktop** and press the **<F1>** key (Help).



Select **Start > Help and Support > Networking and the Web > Networking > Wireless networking > Bluetooth devices (wireless)** to view Windows Help.

## Exchanging Files between Bluetooth computers

The procedures to exchange files and folders between Bluetooth computers are described below.

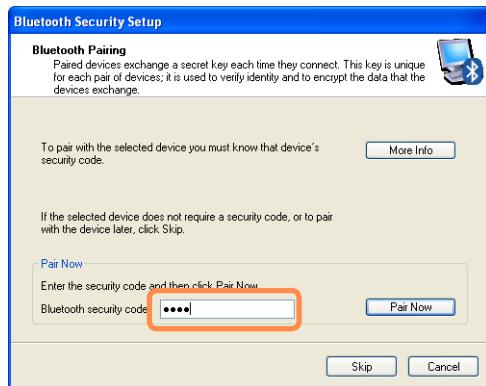
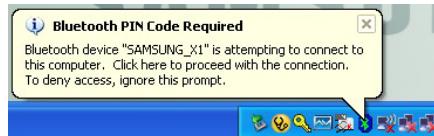
- 1 On the computer that is sending a file (hereafter Computer A), right-click the **Bluetooth** icon (blue circle with a white 'B') in the notification area and select **Quick Connection > File Transmission > Search for Device**.



**2** In the **Select Device** window, click a computer to be connected (hereafter Computer B).



**3** When the Bluetooth Security Setting window appears, enter the Bluetooth security code (or Bluetooth PIN) and click **Start Pairing**.

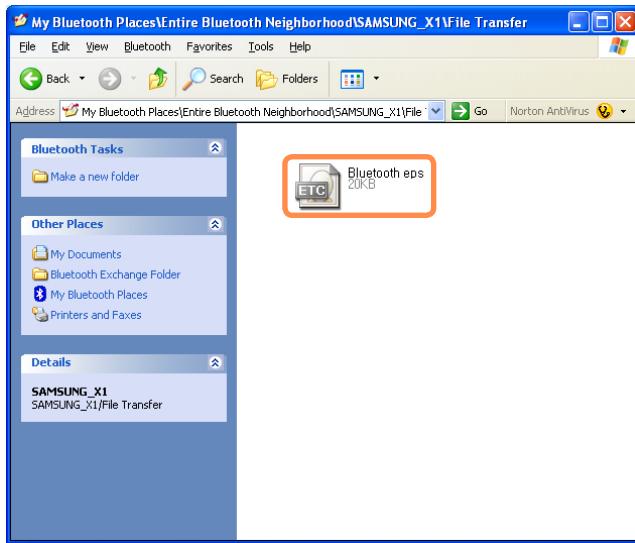


 The Bluetooth PIN Code is a password used for the connection between two Bluetooth devices, the user just enter the same PIN Code (for example, same numbers) on both Bluetooth devices to make a connection.

**4** After a short while, the Bluetooth PIN Code required dialog box appears on **Computer B**, enter the code that you have input in Step 3 above.

**5** If the FTP File Access Privilege Request window appears on **Computer B**, click the window. If the Select Access Permission window appears, click **OK**.

**6** The file transmission window appears on computer  
A. Drag files or folders to send onto the window, and the files or folders are automatically transmitted.



**7** If the file transmission is complete, close the File Transmission window. The received files are saved in the **C:\Documents and Settings\[user name]\My Documents\Bluetooth Exchange** folder.

## Connecting Keyboard, Mouse, Joystick and Headset devices

The procedures to use Bluetooth HID devices (keyboard, mouse, joystick, etc.) or a headset, etc. on the computer are described below.



The Bluetooth PIN Code is a password used for the connection between two Bluetooth devices, the user just enter the same PIN Code on both Bluetooth devices to make a connection.

**1** Turn on the Bluetooth function on the device to connect to (mouse, keyboard, joystick or headset).  
Some devices have a button to turn on the Bluetooth function, so see the corresponding device manual.

**2** Double-click the **My Bluetooth Settings** icon (  ) on the Desktop.

**3** If the My Bluetooth Settings window appears, click **View devices in range**.

If the device to connect to appears, click the device. (for example, mouse)



If the device does not appear, click **View devices in range**. If the device has not appeared yet, since this menu changes to **Search devices in range**, click **Search devices in range** to show the device.

**4** If the Bluetooth PIN Code input window appears, enter a PIN code referring to the manual of the corresponding device. The PIN code for an HID device is generally printed in the manual of the corresponding device.

**5** If you enter the PIN code, you can immediately use the device.



A Bluetooth keyboard and mouse work only in Windows. They will not work in MS-DOS mode or in Hibernation mode.

## Stopping a Bluetooth device

Right-click the **Bluetooth** icon (  ) on the Taskbar and select **Stop the Bluetooth device**.



To use a Bluetooth device after stopping it, select **Start Bluetooth device** like above.

## Use Instructions

- Bluetooth devices must be within a 3m distance.
- For a better communications environment, use the devices in an open space where no wall or obstacle exists.
- For a telephone connection, data synchronization, electronics business card exchange, fax transmission/reception, sound related functions, and serial port function, you can connect with only one Bluetooth device.
- Using the network connection or file transmission function, multiple Bluetooth devices can be connected. However, since connecting with multiple devices may slow down the data rate or make the connection unstable, connecting with one device at a time is recommended.
- The Bluetooth function of a Bluetooth PDA, mobile phone, mouse or keyboard may be turned off. To use them in connection with a Samsung computer supporting Bluetooth, you must check if the Bluetooth function of the device to connect to is turned on. For the procedures on turning on the Bluetooth function of a device, see the manual of the device.
- The services provided by Bluetooth devices may vary depending on their capability.  
For the services provided by Bluetooth devices, see the manual of the device.

# Chapter 5.

# Using Applications



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# Introducing Programs

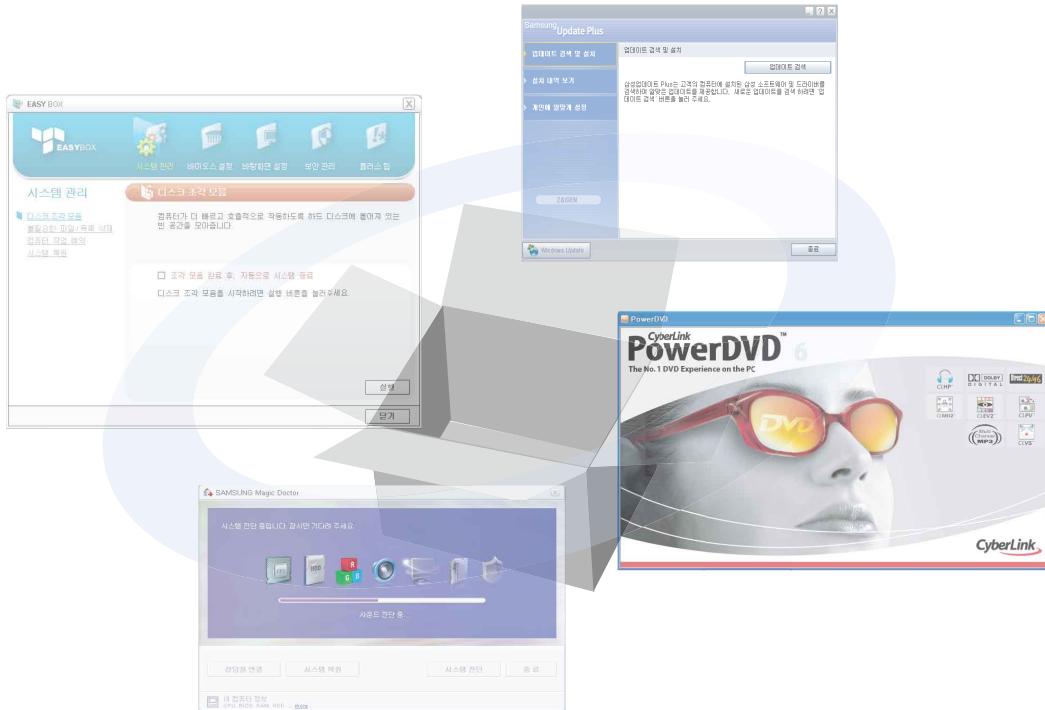
Using the software supplied with the Samsung computer, you can easily use functions and troubleshoot problems. Try to use the software after learning about the basic use of the software. For detailed information, refer to the help section of the corresponding software.



## Before You Start!

Every software program may not be provided depending on your computer model.

In addition, the screen capture images may differ from actual ones depending on the computer model and software version.



## Multi Media Functions

---

### ■ CyberLink PowerDVD () (Optional)

To use this program, you have to install the program manually using the additionally supplied System Software Media. ☞ p. 99

### ■ AVStation premium () (Optional)

AVStation premium is an integrated multimedia program that enables users to enjoy better quality music, photographs, videos, movies, etc. all with a single program. ☞ p. 102

### ■ AVStation Viewer () (Optional)

This is a program that allows you to easily play AVStation premium in full screen. ☞ p. 115

## Management Functions

---

### ■ Samsung Update Plus () (Optional)

Samsung Update Plus is a software function that examines and updates the Samsung software and drivers installed on your Samsung computer to the most recent versions. ☞ p. 100

### ■ Samsung Network Manager () (Optional)

Samsung Network Manager is a program that enables you to easily configure the network settings. You can configure the network settings for each location and you can also diagnose the network status ☞ p. 77

### ■ Samsung Battery Manager () (Optional)

Samsung Battery Manager is a power management program that provides easy-to-use power management and power saving settings so that the battery usage time can be extended. ☞ p. 134

## ■ Easy Display Manager (Optional)

Easy Display Manager is a program that displays the changed setting on the screen when a setting is changed by pressing the shortcut keys, and enables changing the display mode through the Display Settings window.



Example) The icon that appears when pressing the **Fn** + ( ) keys to change the screen brightness.

## ■ Easy SpeedUP Manager (Optional)

This program enables you to select operation mode when you need maximum system performance or low-noise/low power consumption with one-click.

☞ p. 42

## Troubleshooting Functions

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### ■ SAMSUNG Magic Doctor ( ) (Optional)

SAMSUNG Magic Doctor is troubleshooting software provided by Samsung Computer for system diagnosis, and restoring the system.

The system diagnosis function enables users to diagnose system problems without assistance from others.

# CyberLink PowerDVD (Optional)

You can enjoy audio and video playback of your DVD movies using the **Cyberlink PowerDVD** program.



## Before You Start!

The CyberLink PowerDVD program is optional and may be not provided for some models.

If it is not installed on your hard disk drive, install it using the System Software media (or additional CD).

**1** Insert a DVD title into the DVD drive.

**2** Select **Play DVD Video** and click **OK**. DVD movie starts to play in a moment.



**3** If the DVD movie does not start immediately, Click **Start > All Programs > CyberLink DVD suite > Power DVD > CyberLink PowerDVD**.

**4** Click **Play** from the CyberLink skin menu. The DVD movie starts to play.



Play

Configuration

### Detailed Instruction:

For detailed instruction, click **Start > All Programs > Cyberlink DVD Suite > Power DVD > PowerDVD Help**.

### DVD region code information:

Each DVD-Video disc contains one or more region codes, denoting the areas of the world in which distribution and playback are intended. The commercial DVD player specification dictates that a player must only play discs that contain its region code.

The default region code of DVD drive is set to blank. Every time you insert a DVD title for your new product, The region code of DVD drive changes corresponding to the inserted DVD title. Changes to the region code of DVD drive are limited to the first five times and the last inserted DVD title finally defines the region code of DVD drive. If you already have changed the region code more than five times, please call for further assistance. Services charges may apply in this case.

# Samsung Update Plus (Optional)

Samsung Update Plus is software that examines and updates the Samsung software and drivers installed on your Samsung computer to the latest version.



## Before You Start!

- To search for updates and update your computer using Samsung Update Plus, your computer must be connected to the Internet.
- The update search result may differ depending on your computer model.



Samsung Update Plus does not provide updates for applications installed after purchasing the computer.

## Note

## To update the software and drivers

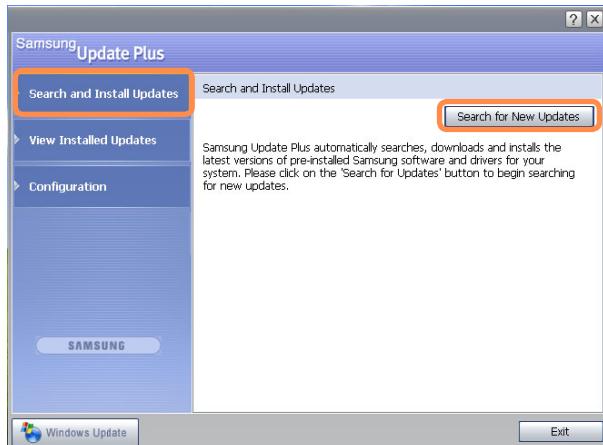
- 1 Select Start > All Programs > Samsung > Samsung Update Plus > Samsung Update Plus.



If this is the first time you are running the program, a window will appear asking you if you agree to the agreement in the window.

Click **Agree** to use this software.

- 2 Click **Search for and Install Updates** and click **Search for New Updates**.



**3** If there are available software or driver updates for your computer, the available updates will be listed. Select the required updates from the list and click **Install Update** to start the update. (The update list on the screen may differ depending on the computer model.)



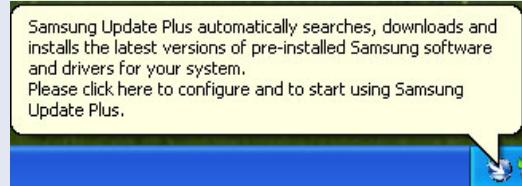
#### Updates that must be installed separately.

If you select **Install** as an update item that must be installed separately, a message appears informing you of this. Follow the instruction message to correctly install it.



#### Automatic update items display

By default, your computer is configured to automatically search for updates. If there is a new update available, this is notified in the notification area. Click the balloon help icon in the notification area. Here you will be able to find the latest available updates.



# Using AVStation premium (Optional)

AVStation premium is an integrated multimedia program that enables users to enjoy music, photographs, video, movies, etc. all with a single program.



## Before You Start!

- AVStation premium is optional and may not be provided depending on the model.
- The screens used in this manual may differ from actual screens according to the program version.
- TV Station is only available for systems supporting the TV function.
- For detailed usage, see the program help.

## Getting Started and Screen Layout

To launch the program, select **Start > All Programs > Samsung > AVStation premium > AVStation premium**. Alternatively double-click the **AVStation premium** icon (  ) on the Desktop.



### MUSIC

You can play a music file or an audio CD.

### PHOTO

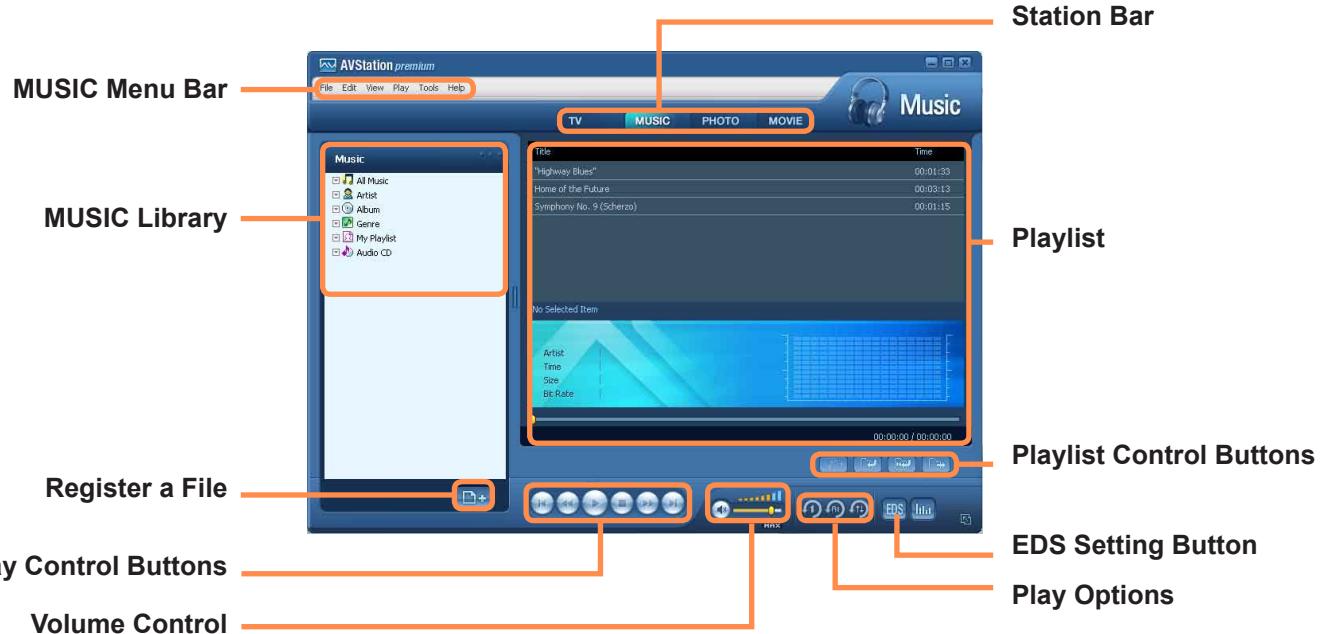
You can view or edit a photograph (image), and also view the photographs through a SlideShow.

### MOVIE

You can play a video (movie) file.

## MUSIC Station

Launch **AVStation premium** and click **MUSIC** on the **Station Bar**.



### What is EDS (Enhanced Digital Sound)?

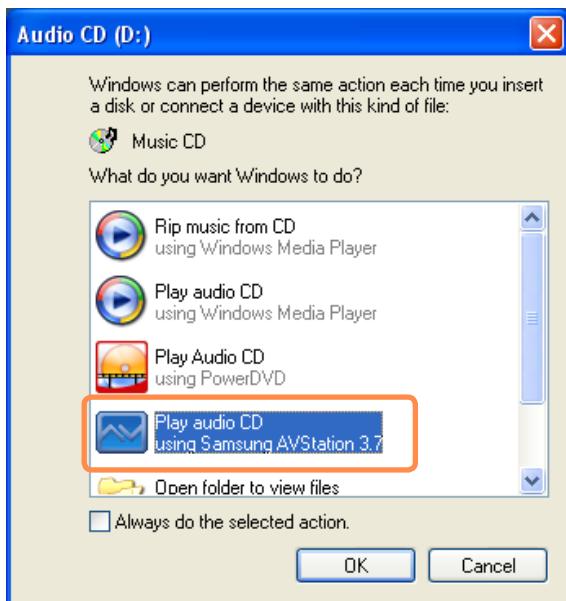
EDS (Enhanced Digital Sound) is a sound quality enhancement technology developed by Samsung Electronics. You can listen to clearer sound if you enable the EDS function when playing music or video on **AVStation premium**.

If the Samsung EDS program is installed, the EDS function of AVStation will not work.

## Playing an Audio CD

The procedures to play an audio CD are described below.

- 1 Launch **AVStation premium** and insert an audio CD into the CD drive.
- 2 In the **Audio CD** window, select **Play Audio CD** using **Samsung AVStation** and click **OK**.



- 3 The tracks on the audio CD are displayed in the Playlist and the first track is automatically played.



 If an audio CD is already in the CD drive, double-click the **album title** in the **Audio CD** folder of the Library and add the tracks to the Playlist. The tracks added to the Playlist are played.

## Playing a Music File

If a music file is registered to the MUSIC Library, you can easily play the music file.

For the procedures to register tracks to the Library, see page 106.

**1** Move to **MUSIC Station** and double-click **All Music**.

**2** Double-click a music file. The file is added to the playlist and played.



### Play a Track not registered to the Library

Click **File > Open**, select a music file to be played and click . The selected track is registered to the Library and played.

### Creating My Playlist

My Playlist is a personal album with which you can collect, manage and play your favorite music files. For the procedures to create My Playlist, see the descriptions of MUSIC Station in Help.

## Adding Music Files to the Library

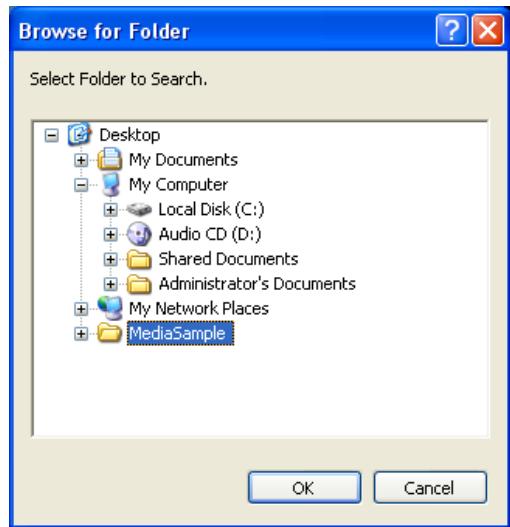
MUSIC Library is a library holding music files used by **MUSIC Station**. The procedures to add music files saved on the computer to the Library are described below.

You can add files and folders or, search and add files. As an example, the procedures to add a folder are described below.

- 1 Click the **Register a File** (  ) button below the Library and click **Add by Folders**.



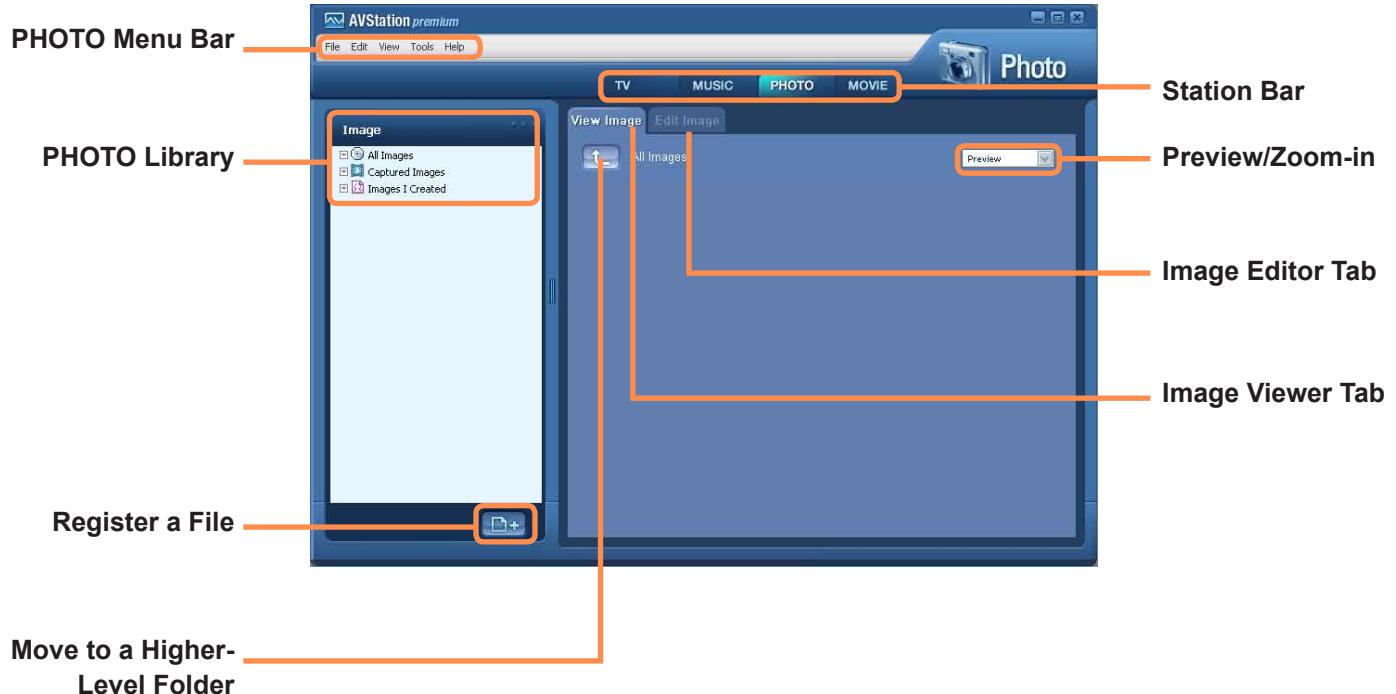
- 2 Select a folder which included music files and click **OK**. The music files in the folder are added to the Library.



 The tracks used in AVStation are automatically added to the Library.

## PHOTO Station

Launch **AVStation premium** and click **PHOTO** on the **Station Bar**.



## Viewing an Image

The procedures to view images registered to the PHOTO Library are described below. For the procedures to register image files to the Library, see page 111.

**1** Move to **PHOTO Station** and double-click **All Images**.

**2** Click a folder which includes images, and the images in the folder are displayed in the **Image Viewer** window.



# 3

Double-click an image. The selected image is zoomed in.



#### ■ Viewing an Image not registered to the Library

Click **File > Open**, select an image file to view and click **Open**.

The selected image file is registered to the Library and displayed in the **Image Viewer** window.

#### ■ Viewing an Image in full screen or through a Slide Show

Click the **Full Screen** (  ) button or **SlideShow** (  ) button below the Image Viewer window.

To return to the Image Viewer window, press the **<Esc>** key or double-click the screen.

#### ■ Watching a Slide Show while listening to Music

To watch a slide show while listening to music, play music from MUSIC Station and run SlideShow.

#### ■ Setting an Image as the Background

Click the **Set as Background** (  ) button below the Image Viewer window.

The selected image is set as the Desktop background.

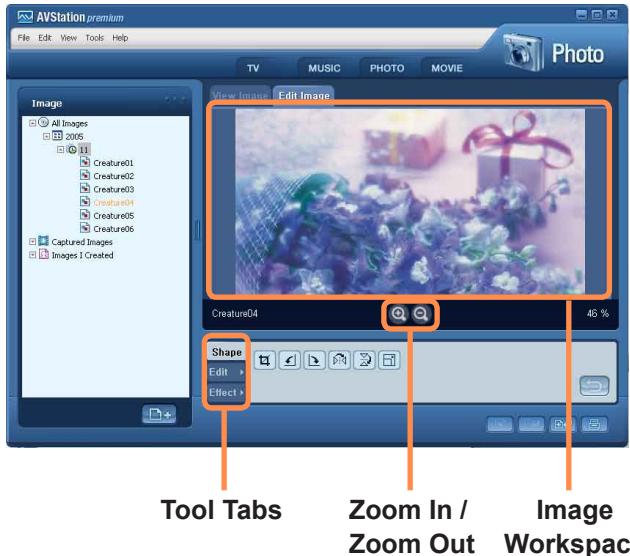
## Editing an Image

You can change the shape of an image, edit an image or apply special effects to an image.

The image editor functions are described below.

- 1 Select an image to edit in the **Image Viewer** window, and select the **Image Editor** tab. The Image Editor screen appears.

The Image Editor screen consists of an **Image Workspace window** and **3 Tool tabs**.



- 2 Edit the image using the **Shape**, **Edit**, and **Effect** tools.



**Shape tool:** Change the shape of an image through cut, resize.

**Edit tool:** Draw a line, add some clip art or enter letters.

**Effect tool:** Apply various effects to an image.

- 3 When finishing editing an image, click the **Save Edited Image** (floppy disk icon) button below the Image Editor window. The edited image is saved.

## Adding Images to the Library

The PHOTO Library is a library holding image files to be used by PHOTO Station. The procedures to add image files saved on the computer to the Library are described below.

You can add files, add folders or search and add files. As an example, the procedures to add folders are described below.

- 1 Click the **Register a File** (  ) button below the Library and click **Add by Folders**.



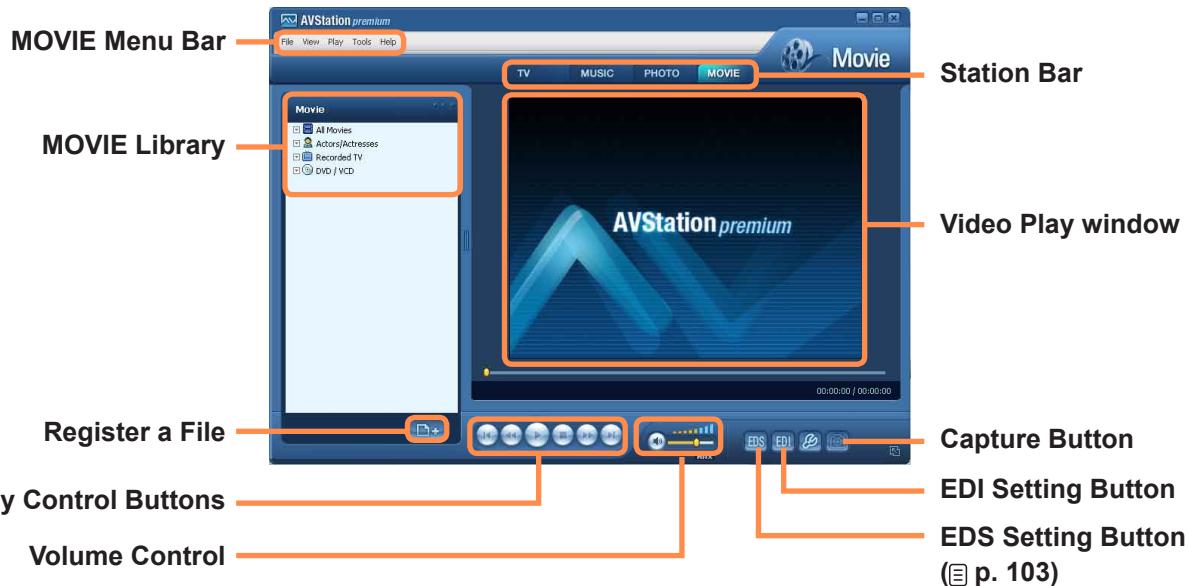
- 2 Select a folder which includes image files and click **OK**. The image files in the folder are added to the Library.



The image files used in AVStation are automatically added to the Library.

## MOVIE Station

Launch **AVStation premium** and click **MOVIE** on the **Station Bar**.



### What is Enhanced Digital Image (EDI)?

EDI (Enhanced Digital Image) is a visual quality enhancement technology developed by Samsung Electronics. You can view a clearer and sharper picture by enabling the EDI function when watching TV or playing a video on **AVStation premium**.

However, some TV tuners and graphics cards are not supported by EDI.

For information on EDS (Enhanced Digital Sound), see page [p. 103](#).

## Playing a Movie (Video) File

The procedures to play a video file registered to the MOVIE Library are described below.

For the procedures to register files to the Library, see page 114.

**1** Move to MOVIE Station and double-click **All Movies**.

**2** Double-click a video file. The file is played.



### ■ Playing a Video file not registered to the Library

Click **File > Open**, select a video file to be played and click **Open**. The selected file is registered to the Library and played.

### ■ Playing a Video File in Full Screen

- ① Double-click the current playback screen.
- ② The video is played in full screen. In full screen, move the mouse pointer to the bottom of the screen to show the **Play Control** bar.

To play at the default screen size, press the **<Esc>** key or double-click the screen.

### ■ Capturing the Video Screen

Click **Capture Current Screen** (  ) below the Play window when the desired image appears on the screen and click **OK**.

Captured images are saved in the **C:\Program Files\Samsung\AVStation Premium xx\Data\Captured Images** folder.

In addition, you can view captured images in the **PHOTO Station > Captured Images** folder.

## Adding Videos to the Library

The MOVIE Library is a library holding video files to be used by MOVIE Station. The procedures to add video files saved on the computer to the Library are described below.

You can add files, add folders or search and add files. As an example, the procedures to add folders are described below.

- 1 Click the **Register a File** (  ) button below the Library and click **Add by Folders**.



- 2 Select a folder which includes video files and click **OK**. The video files in the folder are added to the Library.



The video files used in AVStation are automatically added to the Library.

# AVStation Viewer (Optional)

This is a multimedia program that can play music, photos, video, movies, etc. in full screen.



## Before You Start!

- The AVStation Viewer program is optional and may not be provided depending on the computer model.
- **AVStation Viewer Restrictions**  
Using AVStation Viewer, you can only play files registered to the AVStation premium Library.
- The screen figures may differ from actual ones depending on the program version.
- **TV Station is only available for systems supporting the TV function.**

## Start / Exit AVStation Viewer

### To start AVStation Viewer

- Select **Start > All Programs > Samsung > AVStation premium > AVStation Viewer** from Windows.
- Press the **AV** (AV) button when the computer is on or off to launch AVStation Viewer.

### To exit from AVStation Viewer

Move the mouse pointer to the top of the screen and click the **Exit** (X) button.



## Screen Layout



### MUSIC

You can play a music file or audio CD.

### PHOTO

You can view a photograph or image file one by one or in a SlideShow.

### MOVIE

You can play a video(movie) file.

### Settings

You can set the Music, Photo and Movie settings.



- To move to the start screen while using the program, press the **AVS** (AVStation icon) button or <ESC> key.
- Or, move the mouse pointer to the top left in the current screen and click the **AVStation** icon (AVStation icon).

## MUSIC Station

The procedures to play a music file or an audio CD are described below.

### Playing a Music File

The procedures to play a music file registered to the MUSIC Library are described below.  
(For the procedures to register files, see page 106.)

1 Launch AVStation Viewer and click **Music**.

2 Click **All Music** and double-click a file in the right pane.  
The music file is played.



## Playing an Audio CD

---

- 1 Launch **AVStation Viewer** and insert an audio CD into the CD drive.
- 2 In the AVStation **Viewer** start screen, click **Music**.
- 3 Double-click the **Audio CD** in the left pane and double-click an album or music file in the right pane. The selected music file is played.

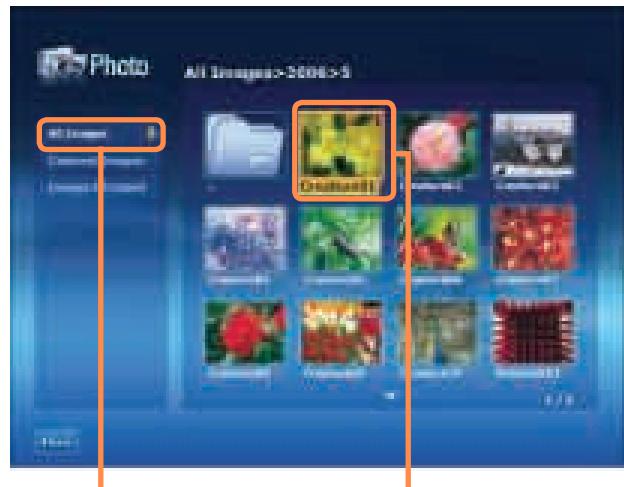


## PHOTO Station

The procedures to view images registered to the PHOTO Library are described below.

(For the procedures to register image files to the Library, see page 111.)

**1** Launch AVStation Viewer and click Photo.



All Images

Image File

**3** The selected image is zoomed in on.



To view an image in full screen or through a SlideShow.

Click the **SlideShow** or **Full Screen** button below the zoomed in image.

To return to the previous status in SlideShow or full screen, press the **<Esc>** key or double-click the screen.

## MOVIE Station

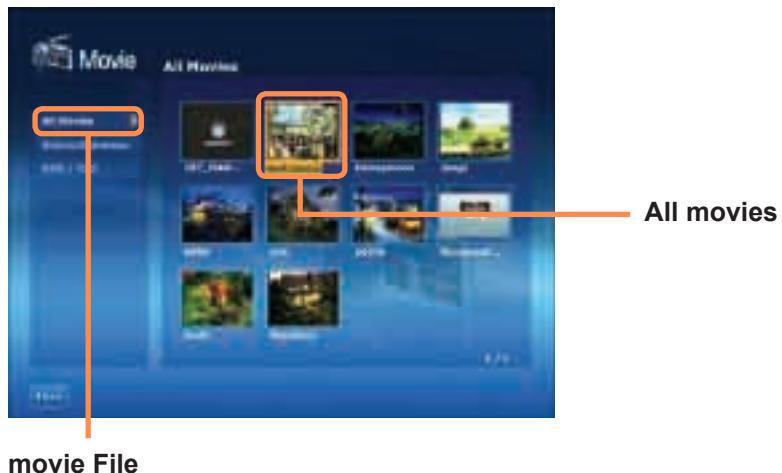
The procedures to play a video(movie) file are described below.

### Playing a Movie File

The procedures to play a video file registered to the MOVIE Library are described below. [p. 114](#)

**1** Launch **AVStation Viewer** and click **Movie**.

**2** Click **All Movies** and double-click a movie file in the right pane.  
The movie file starts to play.



#### Showing the Play Control window

Press the **Spacebar** key or move the mouse pointer. The Play Control window appears at the bottom.

# Chapter 6.

## Settings and Upgrade



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# LCD Brightness Control

You can adjust the LCD brightness in 8 levels.

## Adjusting LCD Brightness Using Keyboard

Press the **Fn** +  or **Fn** +  to adjust the brightness of LCD.

The LCD brightness has eight levels of degree. By pressing the **Fn** + , the LCD gets brighter by one level of degree.

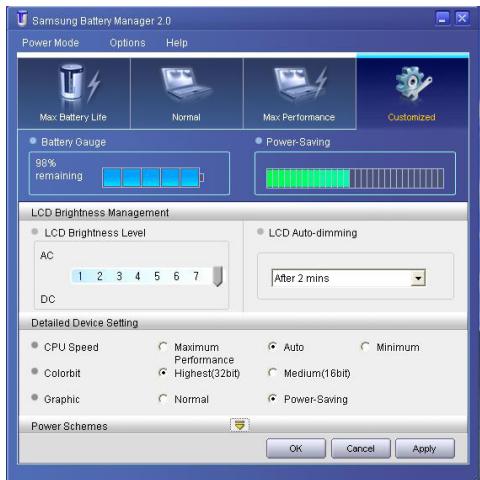
## Adjusting LCD Brightness Using Samsung Battery Manager

Appropriate LCD brightness is set for each mode in Samsung Battery Manager. In user settings mode, you can select the brightness level.

Click **Start > All Programs > Samsung > Samsung Battery Manager > Samsung Battery Manager**.

(for example, in Customized mode)

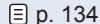
In this mode, you can change the brightness and device setting details.



### LCD Brightness

The LCD brightness settings for maximum battery mode, general mode, and maximum performance mode in Samsung Battery Manager are not maintained when your computer reboots.

Only the LCD brightness setting in the user settings mode is maintained once you reboot the computer. For information on the other features of Samsung Battery Manager, see the description on batteries.

 p. 134



### To Maintain the Changed LCD Brightness After Reboot

Configure the following settings to maintain the LCD brightness set using the screen adjustment key or **Samsung Battery Manager**.

- ① Turn on the computer. If the SAMSUNG logo appears, press the **F2** key. Then, setup will start.
- ② Change the value of Brightness Mode Control on the Boot menu to User Control.
- ③ Press the **F10** key to save the change and complete setup.

### How to Reduce Battery Consumption

Adjust the screen brightness to a darker value or select the maximum battery mode in **Samsung Battery Manager** to reduce battery consumption.

### Bad pixels of an LCD

The LCD may have less than 4 bad pixels but it does not affect the computer performance. This product may have bad pixels of the same level as the products made by other companies.



### Caution for Cleaning up LCD

Wipe the LCD from the center to the outside with a soft cloth soaked in a computer-dedicated detergent. If you wipe the LCD firmly, it may have damage.

# BIOS Setup

The BIOS Setup enables you to configure your computer hardware according to your needs.



## Before You Start!

- Use the BIOS setup to define a boot password, change the booting priority, or add a new device. Since incorrect settings may cause your system to malfunction or crash, take care when configuring the BIOS.
- The functions of the BIOS setup are subject to change for product function enhancement purposes.



The BIOS Setup menus and items may differ depending on your computer model.

## Note

## Entering the BIOS Setup

**1** Turn the computer on.

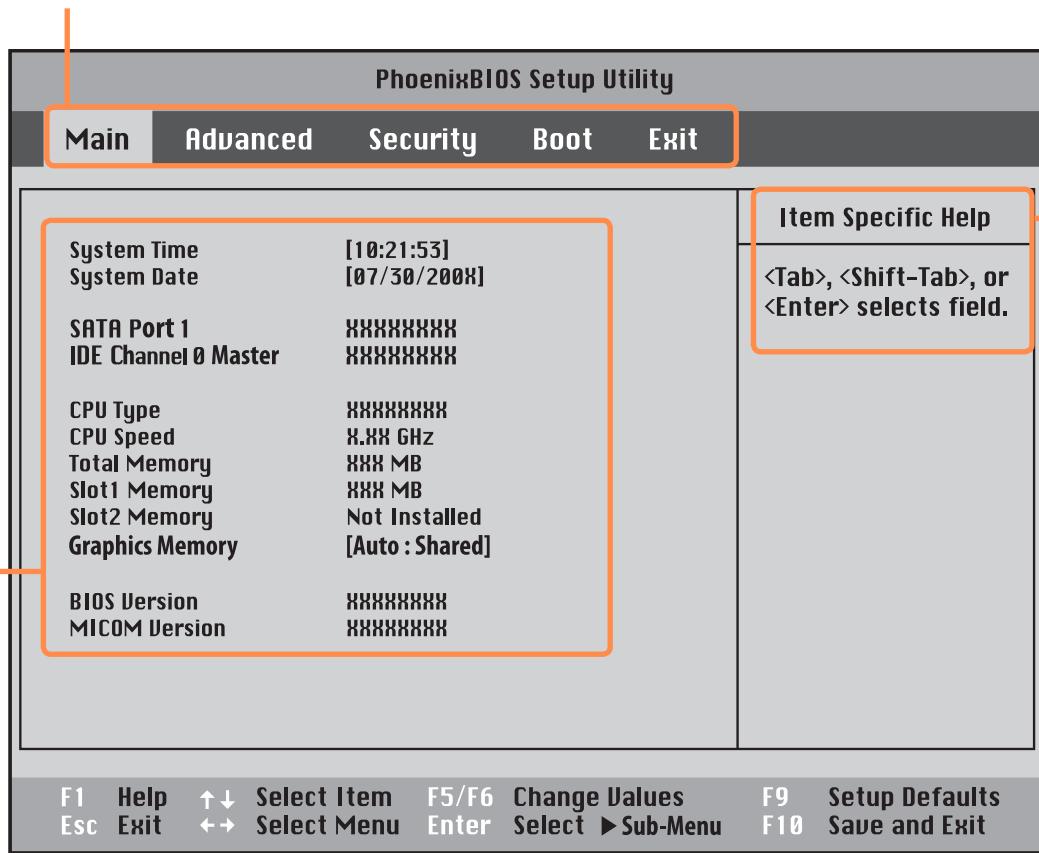
**2** When the booting screen (SAMSUNG logo) appears, press the F2 key to enter the BIOS Setup.



3 After a moment, the BIOS setup screen appears.

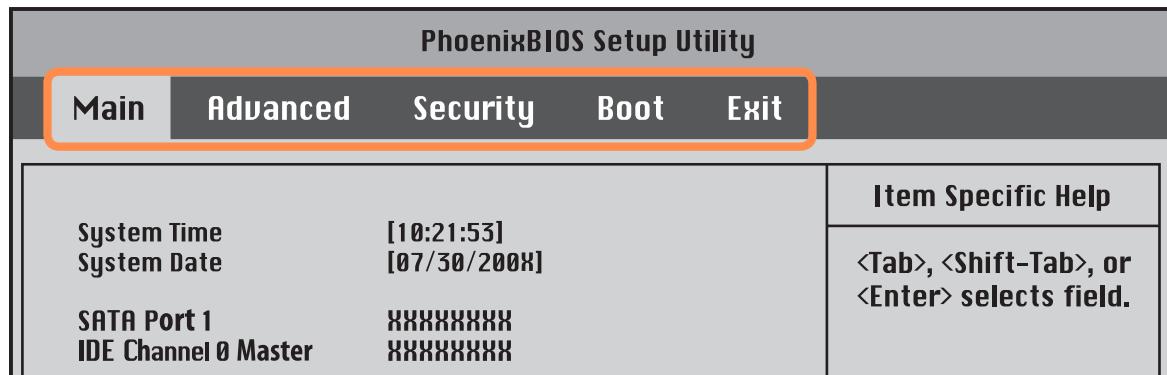
The items in the BIOS setup may differ depending on the product.

### Setup Menu



### Setup Items

## The BIOS Setup Screen



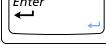
Menu	Description
Main	Used to change the basic system and environment settings.
Advanced	Used to configure advanced functions on your computer around devices and chipsets.
Security	Used to configure security functions, including passwords.
Boot	Used to set the boot priority and other boot options
Exit	Used to exit the Setup either saving the changes or not.

## System Setup Keys

---

In the Setup, you have to use the keyboard.

---

<b>F1</b>		Press to view the Setup Help.
<b>Up &amp; Down Keys</b>		Press to move up and down.
<b>F5/F6</b>		Press to change the item value.
<b>F9</b>		Press to load the default Setup settings.
<b>ESC</b>		Press to return to a higher level menu or to move to the Exit menu.
<b>Left &amp; Right Keys</b>		Press to move to another menu.
<b>Enter</b>		Press to select an item or to enter a sub menu.
<b>F10</b>		Press to save the changes and exit Setup.

---

# Setting a Boot Password

When setting a password, you have to enter a password to use the computer or enter the BIOS Setup. By configuring a password, you can restrict system access to authorized users only and protect data and files saved on the computer.



## Before You Start!

Do not lose or forget your password.

If you have forgotten your password, contact a Samsung service center. In this case, a service fee will be charged.

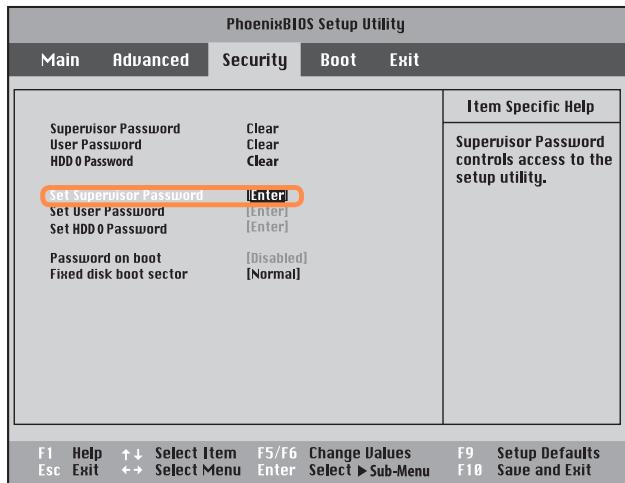
## Setting a Supervisor Password

A Supervisor Password is required to turn the computer on or to start the System Setup.

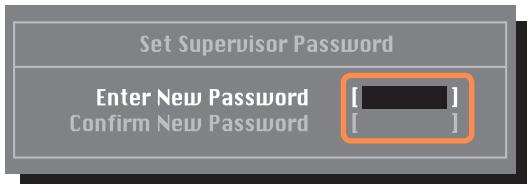
When setting a Supervisor Password, users other than a supervisor cannot use the computer.

**1** Select the **Security** menu in the BIOS Setup.

**2** In the **Set Supervisor Password** item, press **<Enter>**.



**3** Enter a password, press **<Enter>**, re-enter the password for confirmation, and press **<Enter>** again. The password can be up to 8 alphanumeric characters. Special characters are not allowed.



**4** When a message confirming the password configuration appears in the **[Setup Notice]** window, press **<Enter>**. The supervisor password has been set. The supervisor password is required to turn the computer on or to enter the BIOS Setup.

## Setting a User Password

Users can start the system with a user password, but cannot enter the System Setup. By doing this, you can prevent other users from entering Setup.

Before configuring a user password, a supervisor password must have been configured. Deactivating the supervisor password also deactivates the user password.

In the **Set User Password** item, press **<Enter>** and complete the procedures from Step 3 of Setting a Supervisor Password.

## Setting up a Hard Disk Drive Password (Optional)

A supervisor password must be set using the Set Supervisor Password menu.

If you set a password for a hard disk drive, it cannot be accessed from another computer.

Press Enter in the **Set HDD 0 Password** item and define a password as described in Step 3 of the Setting up the Supervisor Password.



### Caution

The hard disk drive password setting function is not provided for some models.



### Caution

#### Changing the hard disk drive password

For security purposes, you can only change a hard disk drive password after restarting the computer by pressing the computer **Power** button.

If you cannot change the hard disk drive password or the **HDD Password Frozen** message appears when entering the BIOS Setup and then selecting **Security > HDD 0 Password**, press the Power button to turn the computer on again.

## Setting Up a Boot Password

To setup a boot password, the administrator password (Set Supervisor Password) should be set in advance.

Set the Password on boot item to Enabled. Once a boot password is set, you have to enter a password to boot up the computer.

## Deactivating the Password

**1** Press **<Enter>** on the password to be deactivated. For example, to deactivate a supervisor password in the **Set Supervisor Password** item, press **<Enter>**.

**2** In the **Enter Current Password** item, enter the currently configured password and press **<Enter>**.

**3** Leave the **Enter New Password** item field empty, and press **<Enter>**.

**4** Leave the **Confirm New Password** field empty, and press **<Enter>**.

**5** In the **[Setup Notice]** window, press **<Enter>**. The password is deactivated.

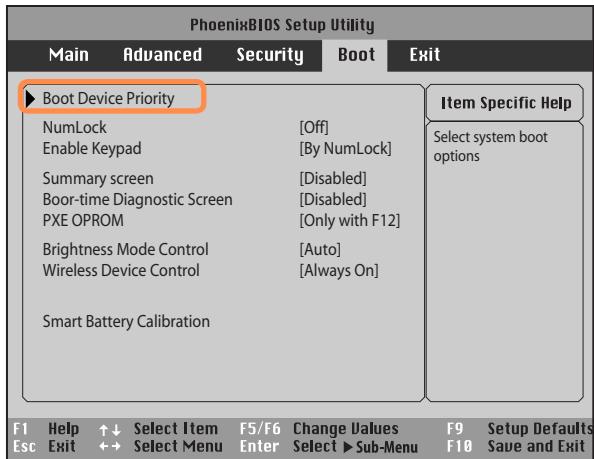
# Changing the Boot Priority

The default boot priority of your computer is the CD-ROM first, then a removable device and then the hard disk drive in this order.

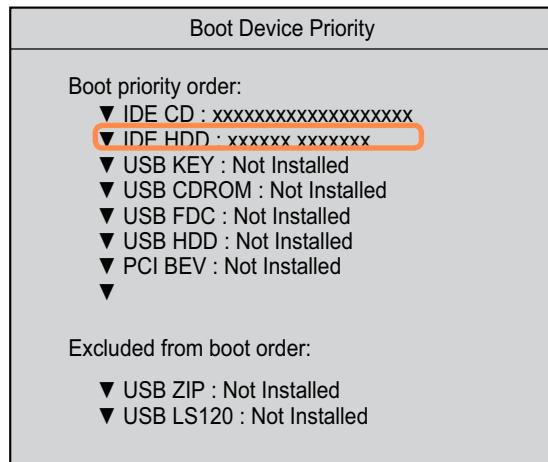
By default, the highest boot priority device is set to the CD-ROM/DVD drive. As an example, the procedures to change the highest boot priority device to the hard disk drive are described below.

**1** Select the **Boot** menu in the BIOS Setup.

**2** Press **<Enter>** on the **Boot Device Priority** item.



**3** Move to the **IDE HDD** using the **↓** key and press the **F6** key to move it to the top.



**4** Press the **F10** key to save the settings and exit Setup. The highest boot priority device is now set to the Hard Drive.

# Upgrading Memory

One or more memory modules are installed on the computer.

There are 2 memory slots and users can replace the installed memory or add new memory.

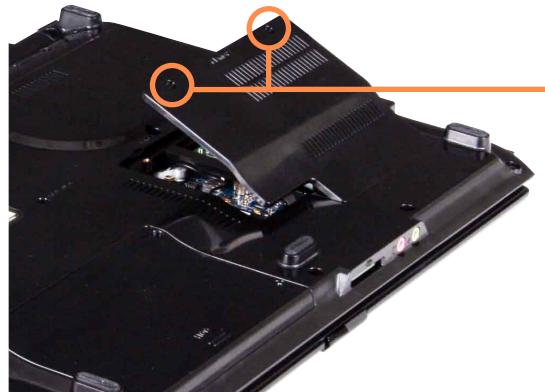


## Before You Start!

- Replace or install new memory only after shutting the computer down completely. Do not replace or install memory when the computer is in Sleep mode.
- Disconnect mains power and remove the battery before continuing.
- To utilize the dual channel feature, using memory modules with the same specifications (of the same capacity and from the same manufacturer) is recommended.
- Only use the same type of memory as specified in the Product Specification

## Adding a Memory Module

**1** Remove the screw on the memory compartment cover at the bottom of the computer using a screw driver.



Fixing Screw

**2** Insert a new memory module into the memory slot at an angle of approximately 30 degrees aligning it to the angle of the memory slot.



**3** Push the memory module down so that it is completely fixed. If the memory does not fit easily, push the memory module down while pulling the memory module latches outward.



**4** Close the memory compartment cover and fasten the screw.



**Note**

**Removing a memory module**

Pull the memory module latches outward. The memory module will pop up.

Remove the memory module out at an angle of 30 degrees.



# Battery

Please refer to the following instructions when running the computer on battery power without connecting the AC power.

A Lithium-Ion smart battery is supplied with this computer.



## Before You Start!

Carefully read and follow the precautions printed on the battery before using the battery.



### Precautions

Use only chargers specified in the User Manual.

#### Caution

Never heat the battery pack, put it near or in a fire or use at a temperature higher than 60°C, as this may cause fire.

Never cause a short circuit between the battery pack terminals or disassemble the battery pack.

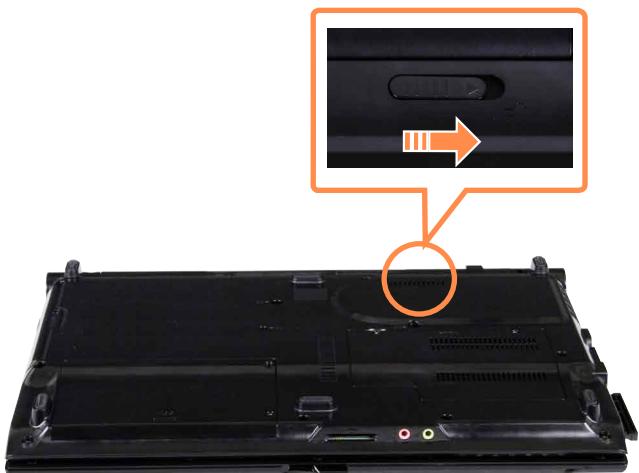
Carefully read and follow the precautions printed on the battery and the safety instructions in the User Manual before using the battery.

Please refer to the system operation environment (参见 p.163) of this manual and operate and store the battery at room temperature.

## Installing/Removing the Battery

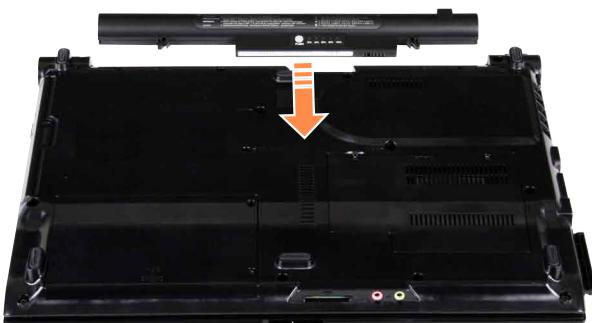
**1** Shutdown the system, close the LCD panel and place the computer upside down on a flat surface.

**2** Pull the two battery latches outwards (☞), then remove the battery.



**3** To install the battery again, slide the battery into the system.

The battery latches move inwards and fix the battery automatically.



Check if the battery latch has been moved inwards.

### Note

## Charging Battery

**1** Insert the battery and connect the AC adapter to the power input jack on your computer.

Battery charging starts.

**2** When charging is complete, the status indicator changes to light green.

Status	Indicator
While being charged	Orange
When charging is complete	Light Green
When the AC adapter is disconnected	Turns off

## Checking Battery Residual Amount

This section describes how to check the battery residual amount.

### Using Shortcut keys

If you press the **Fn** + (  ) on the keyboard, the battery residual amount will be displayed on the screen for a short time.

It is displayed only if the Easy Display Manager is installed.

### Viewing in Battery

If you separate the battery and press the PUSH button located inside, the battery residual amount will be displayed.



#### Warning of Battery Shortage

- If the battery residual amount is less than 10%, a warning alarm rings.  
In this case, connect the AC adapter to the computer or replace the battery after turning off the system.
- If the battery residual amount is 3~5%, the computer automatically shuts down after saving the data.  
The battery residual amount may vary depending on the computer model.

## Guide to the battery lifecycle

The battery is an expendable item so its life gets shorter when used for a long time. It is time to replace it when the battery life is less than half of the figure when purchasing.

If you won't use the battery for a long time, discharge it first for keeping. This will guarantee longer life of the battery.

## Using Battery Longer

### Using Samsung Battery Manager

Battery Manager is a management program that allows you to use the battery efficiently. You can select the optimized power mode depending on the system environment.

Click **Start > All Programs > Samsung > Samsung Battery Manager > Samsung Battery Manager**.



Select Power Mode

Power-saving Effect

## Maximum Battery Mode

This mode is appropriate for the environment that requires maximum battery lifetime. The system performance may be degraded in this mode.

## General Mode

This mode is appropriate for the regular environment and it optimizes the performance of the system and battery.

## Maximum Performance Mode

This mode is appropriate for the environment that requires maximum system performance. The battery life may get shorter in this mode.

## User Settings Mode

This mode allows you to configure the detailed settings. You can set LCD brightness, power status, and color quality.



### What is the Power-saving Effect?

This product displays the battery life in each power mode. The higher the power saving effect increases, the longer the graph bar is displayed.

### When Using Games or Multimedia

The system may not operate properly in maximum battery mode. It is recommended to connect the AC adapter to the system or to use the system in general mode.

### Usage Mode of Samsung Battery Manager

- The maximum battery mode optimizes the system operation speed to increase the battery run time, so the program execution time may get longer.
- If you change the power settings, the properties in **Power Options** window will also be changed.
- Complete, install Samsung Battery Manager using the **System Software Media** in order to use the general mode.

## Disabling Unused Devices

If you turn off unused devices, battery lifetime will improve.

**1** Click **Device Manager** from **Start > Control Panel > Performance and Maintenance > Systems > Hardware tab**.

**2** Right-click the devices that you are not using and select **Disable**.

## Enabling Battery Calibration

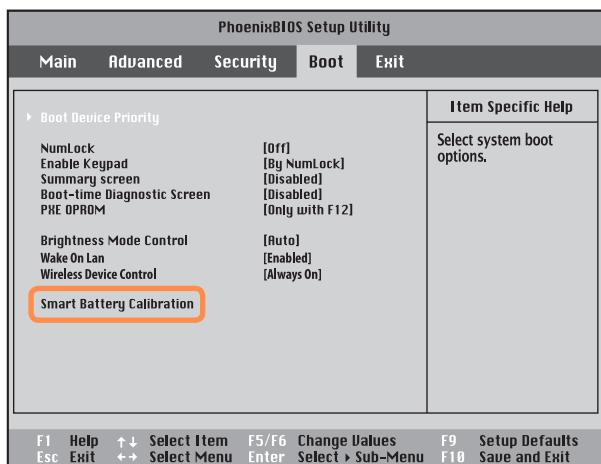
If you charge the battery to use that has not been used up, the gap between actual battery capacity and battery residual amount happens to have. Accordingly the battery life may get shorter.

In this case, use the Battery Calibration feature to completely discharge the battery and charge it again. Then this gap will disappear.

**1** Turn off the computer and remove the AC adapter.

**2** Turn on the computer again. When the SAMSUNG logo appears, press the **F2** key to enter the Setup.

**3** Select **Boot Menu > Smart Battery Calibration** and press the **Enter** key.



**4** Select **Yes** from the **Battery Calibration Confirmation** window and press the **Enter** key. The Battery Calibration starts. To stop it, press the **Esc** key.

It takes about three to five hours depending on the battery capacity and residual amount.

# Using the Security Lock Port

You can connect a Kensington lock to the Security Lock port to prevent your computer being stolen when you have to use the computer in a public place.

To use this feature, you have to purchase the Kensington lock additionally. To use the Kensington lock, refer to the product manual.

Tie the Kensington lock cable to a fixed object and install the other end of the cable to the Security Lock port.





# Chapter 7.

# Appendix

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# Using McAfee SecurityCenter (Optional)

A computer virus is a program that damages computer files and information saved on a computer. A computer is infected by an already infected file or by another computer over the Internet. Let's learn how to use McAfee SecurityCenter in order to scan and remove viruses and to protect your computer from various threats on the Internet.



## Before You Start!

- When McAfee SecurityCenter is run for the first time, the Registration screen appears. Register according to the instructions on the screen. You have to register the software to protect the PC with the latest security information.
- If you cannot find McAfee Security Center icon on the Taskbar or a shortcut icon on the Desktop, then double click McAfee Web Essentials icon and install the program.
- If you install McAfee SecurityCenter and another anti-virus program (e.g. Norton Internet Security, Kaspersky, etc) on the same computer, your computer performance may become degraded and your computer may not be protected from threats due to a conflict between the programs. It is highly recommended installing only one security program.

## Scanning and Curing Viruses

**1** Click Start > All Programs > McAfee > McAfee SecurityCenter.

**2** Click **Scan** from the left pane of the program.



**3** If a virus is found, remove the virus according to the instructions on the screen.

**4** If a virus is found, remove the virus according to the instructions of the Restoration Wizard.



### Note

To protect yourself against the latest viruses, update McAfee SecurityCenter regularly. Connect to the Internet and click the **Update icon** (  **Update** ) to update.

# Using Samsung Magic Doctor (Optional)

Magic Doctor is troubleshooting software provided by Samsung Computer. A user can diagnose system problems via one-click or by selecting diagnostic items.



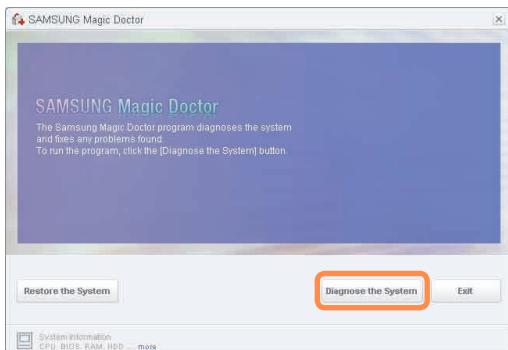
## Before You Start!

The screens used in this manual may differ from actual screens according to the program version.

## Diagnosing the System

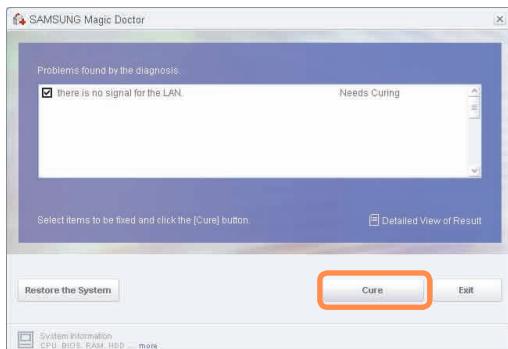
**1** Select **Start > All Programs > Samsung > Samsung Magic Doctor > Samsung Magic Doctor.**

**2** Click the Diagnose the System icon.



The system status diagnostics start.

**3** When the system status diagnostics are complete, the diagnostics result appears.



If a problem has been found, click on **Cure** for Samsung Magic Doctor to cure the problem.

# Reinstalling Software

If you have reinstalled the Windows operating system, or the system and program do not operate properly, you can re-install the driver and program using the system software Media.



## Before You Start!

This computer is optimized for Microsoft Windows XP, therefore drivers for other operating systems are not included on the System Software Media.

## Running the system software Media

Insert the system software Media into the CD-ROM drive. The initial screen appears automatically.



- **Standard Installation:** This displays a list of drivers or programs that are not currently installed on your computer from the system software Media provided. All necessary components are installed using the factory defaults.

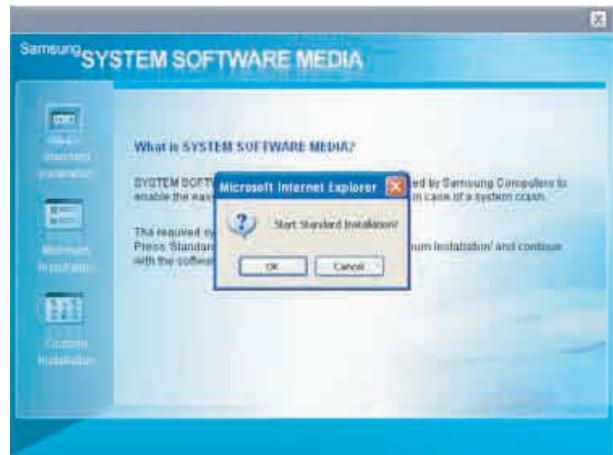
- **Minimum Installation:** This displays the components (driver, Windows programs, etc) that, if not installed, may cause problems with the system performance. You can install only required components.
- **Custom Installation:** You can customize the installation of drivers and programs.

## Installing drivers and programs

**1** Click **Standard Installation** in the main window of the System Software Media. (Standard Installation is recommended)

**2** The system is scanned to display the drivers and programs that need to be installed.

**3** Click **OK**. The drivers and programs are automatically installed as factory defaults.



**4** When done, restart the system.

# Reinstalling Windows XP

You can reinstall Windows using the System Recovery CD when Windows does not work properly.



## Before You Start!

- A System Recovery CD may not be supplied depending on your computer model.
- To reinstall Windows when Windows does not boot, refer to page 145.



### Note

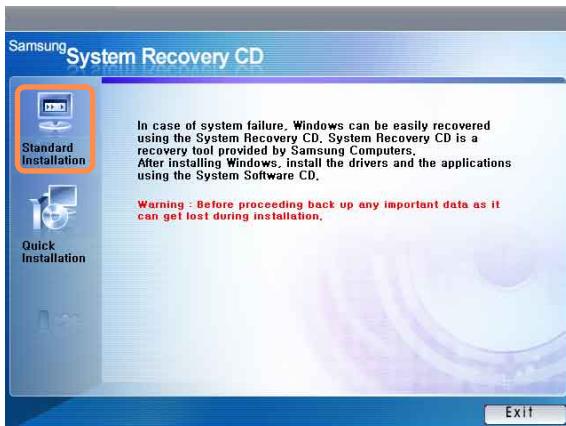
Reinstalling Windows may delete data (files and programs) saved on the hard disk drive. Make sure to backup all important data. Samsung Electronics shall not be held liable for any loss of data.

## Reinstalling Windows

Explain Standard installation option as a standard.

**1** Insert the system recovery CD into the CD-ROM drive.

**2** In the initial screen, click **Standard Installation**.



■ **Standard installation:** You can change the settings for partitioning, the installation folder, etc. during the Windows installation. However, reinstalling Windows may delete the data on the hard disk drive such as files, programs, etc. In order to minimize damage from data loss, please remember to always back up data.

■ **Quick Installation:** This re-installs Windows with the user data and the system configuration intact. The user data in the already existing Windows folders may be preserved as the existing Windows folders are overwritten.

**3** The description for the standard installation appears. Click **Yes**. The installation starts, and the system will be restarted after a while.



**Note**

When Quick Installation is selected, Setup proceeds with Step 3 before automatically installing Windows. Quick Installation overwrites the existing Windows version, so that drivers or applications do not need to be reinstalled.

**4** After the system has restarted, the message 'Press any key to boot from CD' appears. Do not press any key at this time. After a while the partition configuration screen appears. To not change the partition, press **Enter**.



**Note**

**What is partition configuration?**

Partition configuration is a function that divides the hard disk drive into one or several partitions. Note that changing the partition deletes all of the data on the hard disk drive.

**5** Select the folder to install the Windows operating system. To delete the previous version of Windows and install in the current folder, press **L** on the keyboard.



**Note**

If you press **ESC** to select another folder for the installation, new Windows folders are created causing a risk of dual booting.

**6** After the installation process copies the necessary folders for the Windows installation, restart the system, and the message "Press any key to boot from CD" is displayed. You do not need to enter anything. In a moment, the Windows XP installation screen will appear to proceed with the installation.

**7** When the **Regional and Language Options** window appears, click **Next**.

**8** When a window that requires your name and organization pops up, enter your name and the organization and click **Next**. In the Windows XP Professional edition, an additional window that requires the computer name and the administrator password appears. Enter **the computer name and the administrator password** and click **Next**.

**9** When the **Date and Time Settings** window appears, click **Next**. Setup will continue.

**10** When the system restarts to display Press any key to boot from CD, do not press any key.

When you see the Windows desktop, this means that the installation process is completed. Remove the system recovery CD and install the **device drivers and applications** from the **system software Media**.

## Reinstalling when Windows does not start

When Windows does not start, boot up with the System Recovery CD and from there you can reinstall Windows.

**1** Insert the system recovery CD into the CD-ROM drive and start the computer.

**2** If the following message appears on the screen, press any key from the keyboard.

Press any key to boot from CD.....

**3** Do not press any key at this time. After a while the partition configuration screen appears. To not change the partition, press **Enter**.

**4** Select the desired file system (format). To maintain the current file system, press **Enter**.

**5** Select the folder to install the Windows operating system. To delete the previous version of Windows and install in the current folder, press **L** on the keyboard.

**6** After the installation process copies the necessary folders for the Windows installation, restart the system, and the message “Press any key to boot from CD” is displayed. You do not need to enter anything. In a moment, the Windows XP installation screen will appear to proceed with the installation.

**7** Follow the instructions of the Windows XP installation wizard to continue with the installation.

**8** When the installation is complete, the computer will restart. When the system has restarted, the Press any key to boot from CD message appears. Ignore the message.

The system boots and the Windows and Windows Registration screen appears. Register Windows, following the instructions to finish the Windows installation. Remove the System Recovery CD and install the **device drivers** and **application programs** using **Standard Installation** from the **System Software Media**.

# Questions and Answers

This section provides information on possible problems, solutions and other references for system use.

## Windows Related

### Q The system does not shutdown properly.

**A** When the system does not shutdown normally, press and hold the **Power** button until the system manually shuts off. If the Power-Saving Mode is configured into the **Power** button, press and hold for more than 4 seconds to shut the system off. When the system is turned on after such manual shutdown, Scandisk will run to check errors in the system.

### Q The system freezes during program operation.

**A1** There is an error with the program currently being used. Press the **<Ctrl>**, **<Alt>**, and **<Delete>** keys simultaneously and click **End Task** in the **Windows Task Manager** window.

**A2** There is an error with the Windows OS. Reboot the system by using the **Power** button.

## Display Related

### Q The LCD screen is too dark or too bright

**A** Turn on the LCD backlight or adjust the screen brightness. Press **Fn** +  to turn on the LCD backlight or press **Fn** +    to adjust the screen brightness.

### Q The screen saver disturbs screen viewing during Media Player or video file operation.

**A** Click **Tools > Options > Player** and then clear the **Allow screen saver during playback in the Media Center** check box.

### Q In the following cases, the screen blinks or displays noise for a short time (This only applies to nVidia graphics card.): (Click the Graphics Related tab, Change Resolution, Change Display Device, Remove the AC Adapter, Restart the System, Change PowerMizer level.)

**A** This may happen while the video driver is examining the connected device. While detecting, any connected display devices may blink or some noise may occur.

**Q** When I connect a projector, and change the setting to display screen image on both the LCD and the projector by pressing Fn + (F4   ) keys, screen is not displayed properly.

**A** Press Fn + (F4   ) keys once again. If the same problem continues, it means the projector cannot support the resolution. Lower the resolution to 1024 x 768.

**Q** The Taskbar on the bottom of the screen does not appear when a projector is used as the display device.

**A** This may happen, if the projector does not support LCD resolution. In this case change the resolution to 1024x768 (recommended) on your computer.

**Q** Switching the MS-DOS command prompt to full screen mode or Windows mode by pressing the <Alt>+<Enter> keys does not operate properly.

**A** Pressing the <Alt>+<Enter> keys using an USB keyboard, may cause the key input to be recognized as multiple key inputs depending on the keyboard input recognition time. In this case, the MS-DOS command prompt is repeatedly switched to full screen and then to Windows several times. Please press the <Alt>+<Enter> keys more quickly, or press the <Alt>+<Enter> keys using the system keyboard.

**Q** The shortcut icons are not displayed on the screen even if I press the shortcut key.

**A** The shortcut icons only appear when the Easy Display Manager program is installed.

**Q** The screen is rotated, but I cannot return it to the original orientation.

**A** This may happen when you have used the screen pivot function or pressed a wrong key while using the computer. For nVidia Graphics, right-click the Windows desktop, then click **Nvidia Control Panel** from the context menu. Select **Display > Rotate display** and check one of the four options to return to the original orientation.

**Q** The color is strange when the picture is displayed on the connected monitor (or projector).

**A** Check the monitor signal cable connection and reconnect the cable.

## Sound Related

### Q How to install and uninstall the sound driver.

A To install or uninstall the sound driver from this system, please follow the procedures below.

#### ▶ Sound Driver Components

The sound driver consists of the following 3 components and the 3 components are automatically installed during the installation.

- **High Definition Audio - KB888111:** Microsoft UAA Bus Driver for High Definition Audio.
- **Realtek High Definition Audio Driver:** Realtek High Definition Audio
- **Samsung EDS**

#### ▶ Uninstalling the Sound Driver

To remove the sound driver due to a problem or for an update, follow the procedures below.

If you do not follow the sequence below, the sound driver may not be removed or the reinstalled driver, or may not work properly.

- ① Select **Start > Control Panel > Add or Remove Programs.**
- ② Remove **Samsung EDS** first.
- ③ Remove **Realtek High Definition Audio Driver** and restart the computer.



Do not remove the **High Definition Audio** item. Removing this item also removes the modem device driver.

If you have removed this item, you need to install the modem device driver again.

#### ▶ Reinstalling the Sound Driver

If there is an already installed sound driver, uninstall the driver according to the procedures above.

The sound driver is included on the System Software Media.

- ① Insert the **System Software CD-ROM** into the CD-ROM drive.
- ② Select **Sound Driver** on either **Standard Installation** or **Custom Installation**, then the 3 components of the sound driver are automatically installed.

## ► **Installing the Sound Driver after a Windows XP Reinstallation**

If you install the sound driver after reinstalling Windows XP, the Add Hardware Wizard (Modem Device) window may appear during the sound driver installation.

This happens because the High Definition Audio—KB888111 Hotfix, which has been installed on your system, has changed the settings to search for both sound and modem devices. If you install the modem device, this message will not appear. If necessary, install the modem device together.



The number of the High Definition Audio—KB888111 Hotfix may differ if you have updated the Hotfix from the Microsoft web site.

## **Q How can I configure the Recording Mixer while I am video or audio chatting?**

**A**

- ① Double-click the **volume** icon from the Taskbar and select **Options > Properties** from the menu.
- ② In the Mixer device field, select **Realtek HD Audio Input**.
- ③ Unselect **Mute all** in the Recording control and unselect **Mute** in the Microphone volume.
- ④ Select **Mute** in the Stereo Mixer.

## **Q How can I configure the Recording Mixer while broadcasting music in WinAMP?**

**A**

- ① Double-click the **Volume** icon in the Taskbar and click on **Options**.
- ② In the Mixer device field, select **Realtek HD Audio Input**.
- ③ Unselect **Mute all** in the Recording control and unselect **Mute** in the Stereo Mixer
- ④ Select **Mute** in the Microphone volume if a user want to broadcast music only.  
Unselect **Mute** in the Microphone volume if a user want to broadcast music and voice.

## Modem Related

### Q I cannot hear the modem sound.

**A1** Check that the telephone line is properly connected to the modem.

**A2** Check that the modem driver is installed properly.

- ① Click **Start > Control Panel > Performance and Maintenance > System**.
- ② Select **Hardware tab > Device Manager > Modems in the System Properties** window, and check if there is a yellow exclamation mark on the installed modem icon. If there is, delete the modem device driver and reinstall the driver, because the yellow exclamation mark represents a not properly installed driver.
- ③ If there is no yellow exclamation mark, double-click the installed modem, and click **Diagnostics tab > Query Modem in the Modem Properties** window to diagnose the modem.

No message in either of Command and Response in the Diagnostics tab means that the modem is not operating properly.

Diagnose the modem again after restarting the system or reinstalling the driver.

(You have to exit all programs using modem in the advance of diagnostics of the modem).

### Q I cannot make a call using an extension line.

**A** In general, the dial tone of a PBX or a digital phone switching system is not a continuous one, unlike that of a trunk line.

Therefore, the modem may not make a call because the modem mistakes the dial tone from a PBX or a digital phone switching system as a busy tone. In this case, complete the following procedures.

#### ▶ Using an AT command

As an initialization command, use the command, ATX3. Otherwise, enter the ATX3 command manually before making a call.

It can correct this problem by skipping the dial tone check step.

#### ▶ Configuring the Modem through the Control Panel

- ① Click **Start > Control Panel > Network and Internet Connections**.
- ② Under **See Also**, click **Phone and Modem Options**.
- ③ In the **Modems** tab, select the installed modem, and click **Properties**.
- ④ In the **Modem** tab of the **Modem Properties** window, clear the “Wait for dial tone before dialing” check box.
- ⑤ When the configuration is completed, click **OK**.

## Q How do I use my modem when dialing from overseas?

**A1** Check that the modem is correctly configured according to the current country.

Because the values for communication may differ according to the country, you may not be able to connect via the modem due to an incorrect modem configuration.

- ① Click **Start > Control Panel > Network and Internet Connections**.
- ② Under **See Also**, click **Phone and Modem Options**.
- ③ In the **Dialing Rules** tab, click **Edit**.
- ④ In the **General** tab in the **Edit Location** window, select the current country from the **Country/region** radio box, specify the Area code, and click **OK**.

**A2** Because the shape of the telephone plug may differ according to the country, you have to purchase and use the appropriate telephone plug for that particular country.

## Q How do I receive a fax while the system is in power saving mode (Rest mode)?

**A** To receive a fax in **Standby** mode, you have to set it up as follows.

- ① The automatic fax reception function of the fax program needs to be activated. (For more information, see the corresponding fax program manual.)
- ② Click **Start > Control Panel > Network and Internet Connections**.
- ③ Under **See Also**, click **Phone and Modem Options**.
- ④ In the **Power Management** tab of the **Modem Properties** window, select the “With this device, exit the computer from stand-by mode” item and then click **OK**.

The above setting enables the modem to turn on the system and receive a fax when in power saving mode.

## Wired LAN Related

### Q <Wake On LAN> function

**A1** <Wake On LAN> is a function that activates the system in rest mode when a signal (such as ping or magic packet commands) arrives from network (wired LAN).

To use <Wake On LAN> function:

- ① Select **My Network Places > View network connections** from the Desktop.
- ② Click the right button on the touchpad over **Local Area Connection**, and select **Properties**.
- ③ Click **Configure**, and select **Power Management** tab. Select “Allow this device to bring the computer out of standby”, then click **OK**. Restart the system.

- When turning the computer off when the network is connected without selecting the <Wake On LAN> function, the **LAN LED** may not be turned off.
- The <Wake On LAN> function is only available when the LAN is turned on.
- When connecting a wired LAN while using a wireless LAN, the <Wake On LAN> function may not work. To use the <Wake On LAN> function, select “Do not use Wireless LAN.”
- Connecting wired LAN while using wireless LAN may not execute <Wake On LAN> function. Configure wireless LAN to “Disable” to use <Wake On LAN> function.

- ① Click **My Network Place> View network connections** on the Desktop.

- ② Right-click over **Wireless Network Connection** and select **Disable**.

**A2** The <Wake On LAN> function is configured so that it is supported in **Standby** mode (S3). To use this function in **Hibernation** mode (S4) or in the Turn Off (S5) state, configure it as follows:

- ① Enter **BIOS SETUP** and select the **Boot** menu.
- ② Move to the **Wake On Lan** item and press the **Enter** key. Change it from **Disabled** to **Enabled** and press the **Enter** key.

### Q When I connected 100Mbps wired LAN and the computer exits standby/hibernate mode, a message informing 10Mbps wired LAN connection appears.

**A** When the computer exits standby/hibernate mode, restoring the network takes about 3 seconds. When the network is restored, it operates in 100Mbps.

## Wireless LAN Related

### Q I cannot find an AP.

- ▶ **Check the Wireless LAN LED.**  
A Check if the Wireless LAN LED is on. If off, press the **Wireless LAN On/Off** button **<Fn>+<F9>** to turn it on.
- ▶ **Reinstall the driver.**  
A Reinstall the driver using the software media.
- ▶ **Check the Wireless Zero Configuration (WZC) service.**  
A If the “Windows cannot make this wireless connection” message appears while searching for wireless networks, it indicates that a program other than Windows is set to manage the wireless LAN settings.
- ▶ **To use the wireless LAN settings using Windows:**  
A ① Click **Start > Control Panel > Network and Internet Connections > Network Connections > Wireless LAN Connection**, right-click and check if the “Windows manages wireless network settings (W)” option is selected in the **Wireless Network** tab of the **Properties** window. If not, select the option.

- ② Click **Start > Control Panel > Performance and Maintenance > Administrative Tools > Computer Management** and click **Services and Applications > Services**. In the right pane, double-click **Wireless Zero Configuration** and check if the Startup Type is Automatic and the Status is Started.

### Q I cannot connect to an AP. (The wireless connection is disconnected frequently.)

- ▶ **Check the Network Key.**  
A Right-click the **Wireless Network Connections** icon from the **Taskbar** and click **View available wireless networks**. If wireless networks are found, it indicates that the device is operating properly but the network settings may have a problem. Please check the **Network Key** (Encryption Key) and the **AP settings**.
- ▶ **Check if there is a device nearby using the same frequency band.**  
A1 If there is a device nearby using the same frequency band such as another wireless LAN device, wireless video transceiver, microwave oven, plasma bulb, etc., channel interference may occur. If you experience interference from another device, it is recommended changing the AP channel.

**A2** When operating in EEE802.11g mode, if there is a IEEE802.11b device operating nearby, you may experience low data rates or even disconnection as it operates in Hybrid mode.

► **Check the authentication type.**

**A** A connection may be disconnected after a period of time if the “Use IEEE 802.1x network authentication” option is selected when IEEE 802.1x authentication is not being used.

View the properties of the corresponding AP in the Wireless Network Properties. In the Authentication tab, unselect the “Use IEEE 802.1x authentication in this network” option.

For detailed information on the authentication server, ask your network administrator.

► **Check the AP settings.**

**A1** Check if the surroundings are appropriate for a wireless LAN. A wireless LAN connection may be limited by the surrounding environment and distance. Obstacles such as walls and door mats affect the quality of the wireless LAN signal. You have to install an AP in a high, open position far away from any other radio signal sources. If the AP is excessively far away, or is installed at the end of a building and you are attempting to use the wireless LAN from the other end, you may not be able to use the wireless communication normally because the signal is blocked by obstacles between you and the AP (such as a wall).

**A2** Check if the AP operates properly. If the AP is not operating properly, turn it off and on again and try again.

**A3** Check if the AP firmware is the latest version. (For more information on the AP firmware, ask the AP manufacturer or your product provider.)

**A4** Check if the AP is properly connected to the network. Connect the LAN cable from the AP to a computer and check if the network is connected properly.

**A5** Check the **Network Key** (Encryption Key) settings again. If the automatic password converting function (passphrase function) is enabled and the wireless connection is normal but you cannot send data over the connection, please enter the **Network Key** (Encryption Key) manually.

**A6** Check the AP settings as follows.

If there are multiple APs running at the same time, check the channel setting of each AP. If the interval between the channels of the APs is narrow, you may experience electromagnetic interference. Set the channel numbers of the APs so that the intervals between the channels are maximized. (for example, Ch1, Ch5, Ch9, Ch13) computer.

It is recommended unselecting the Hide option of the AP. SSID (Service Set ID) is a name used to distinguish a wireless LAN from other wireless LANs.

It is recommended using Long Preamble. Preamble is a signal for data transmission synchronization. Although some APs support Short Preamble, there might be a compatibility problem.

Because “Fixed” channel selection is more stable than ‘Auto’ channel selection, “Fixed” channel selection is recommended. It is recommended not using the “Block Any” and “Any Connection Block” functions. Although these functions block connections at the client side when the network name is **Any** or **Blank**, it may cause a compatibility problem.

For more information on the AP settings, see the owner’s manual supplied with the AP.

**Q** Although a connection has been established, I cannot connect to the Internet.

► **Check the TCP/IP settings.**

**A** If you cannot connect to the Internet but you are connected to an AP, check if the TCP/IP settings are configured properly.

When you are not connected to an AP, an X mark appears over the ‘Wireless Network Connections’ icon (Wi-Fi) in the Taskbar. If you double-click the icon, the Search for Wireless Connections window appears. Reconnect to a wireless network referring to the descriptions of **Connecting to a Wireless LAN** in the Using the Network section.

When you are connected to an AP, an X mark appears over the “Wireless Network Connections” icon (Wi-Fi) in the Taskbar. Double-click the icon and check if the IP address is properly allocated on the Support tab. If the IP address is not properly allocated, the IP address will be displayed as follows; (for example, 169.254.xxx.xxx).

If your network does not support DHCP, you have to manually configure an IP address by asking your network administrator.

In addition, even if your network supports DHCP, the Internet connection may not be available if the DHCP server fails to allocate an IP address to your computer.

**Q** I have configured both wired and wireless connections with the same IP address, but the network connections do not work properly.

**A** You cannot use the same IP address for wired and wireless connections. To use only one IP address for both wired and wireless connections, you must disable one of them according to your requirements in Network Connections in the Control Panel.

**Q** After installing the Wireless LAN Setting program, the “AEGIS Protocol (IEEE 802.1x)” protocol appears in the [Local Area Connect Properties] window.

**A** The protocol is a security authentication protocol that is automatically installed when the Wireless LAN Settings program is installed and does not affect the program operation.

**Q** (For Intel PROSet) Although I have turned the wireless LAN off using the Turn Off Wireless LAN button in PROSet, the Wireless LAN LED is still on.

**A** This is normal. The Turn Off Wireless LAN button in **PROSet** just turns off the wireless LAN software. The wireless LAN hardware is not affected by this operation.

**Q** (For Intel PROSet) After installing PROSet, I cannot manage my wireless network in Windows.

**A** When clicking **Use Microsoft Client** in the **Tools** menu of the **PROSet**, you can manage wireless network in Windows.

Thereafter, if you wish to manage your wireless network, click **Activate Intel PROSet/Wireless** in the **Tools** menu of the **PROSet**.

**Q** Internet Connection or File Sharing doesn't work, when I use Internet Connection Sharing or Ad Hoc.

**A** You have to register the IP address allocated for Internet Connection Sharing or Ad Hoc as a ‘Trusted IP’ in McAfee SecurityCenter.

Click **McAfee SecurityCenter > Advanced menu > Configure > Internet and Network > Advanced > Trusted and Banned IPs**, and register the IP address or IP address range as a Trusted IP address. The IP address range for DHCP is 10.0.0.1 ~ 10.255.255.254 if not specified.

## Games and Programs Related

### Q 3D game is not executed, or some functions are not working.

A Change the graphic setting of the game to “2D” or “Software Renderer,” then execute the program again.

### Q I launched a game right after installing it, and the game is not executed.

A This problem may occur when the game is not compatible with Windows XP. Launch the game again, and it will be executed properly.

### Q Fn + ( ) Key combination does not work.

A While displaying video of VCD or MPEG, or the display setting is **Dual View**, you cannot toggle display devices. Also the installation of NetWare Client 32 program disables the function of **Fn + (   )**.

### Q While playing a game, pressing the Fn + ( ) keys does not work or the screen is not properly displayed.

A Some games and 3D application programs may change the display device control. Therefore, pressing the **Fn + (   )** keys may terminate the running program or may display an abnormal screen.

Press the **Fn + (   )** keys before launching a program and do not press them while running the program.

### Q Running speed of a game is too slow or fast.

A Change the setting of Power Schemes to “Always On.”  
(Click **Start > Control Panel > Performance and Maintenance > Power Options > Power Schemes** tab, then configure the Power schemes field to “Always On.”)

### Q Some part of a game image is not displayed or is displayed in black.

A This may happen when running a game designed for DirectX 8.1, such as NHL 2003, MVP Baseball 2003, etc.

## **Q** The picture is not displayed properly for some games.

**A** Some games may not display the picture properly when the screen resolution is set to 1024 × 768 and the color quality is set to 32 bit.

For these games, set the screen resolution to 1024x768, and the color quality to 16 bit.

## **Q** Game play is not displayed smoothly on the screen.

**A** For 3D games, the texture data for the 3D screen display is saved to the system memory. If there is insufficient system memory, the data is saved to the hard disk drive and loaded to memory when required. This operation may temporarily stop displaying the picture on the screen.

In this case, lower the game resolution or the screen settings.

## Bluetooth

### **Q** I cannot find or connect the headset.

**A1** If the headset is connected to another device and is currently being used, you will not be able to locate it. In this case, even if you locate the headset, you will not be able to connect it. Disconnect the headset from the device and then try again.

**A2** If the headset is connected to the power adapter, the Bluetooth wireless connection is not available. Disconnect the headset from the power adapter and try again.

**A3** A Bluetooth headset generally provides On/Off and Pairing modes. To connect the headset to another Bluetooth device such as a computer or cellphone, it must be in Pairing mode. Switch the headset to Pairing mode and try again.

In general, a Bluetooth headset in Pairing mode is automatically switched to On/ Off mode after a pre-determined period of time.

**Q** I have connected the headset, but I cannot hear sound normally.

**A1** If the Bluetooth headset is properly connected to a computer, the **Control Pane Sound Playback Device** changes to **Bluetooth Audio** (for a mono headset) or **High Quality Bluetooth Audio** (for a stereo headset). If the **Sound Playback Device** in the **Control Panel** is not changed properly, you may not hear any sound. Check the audio settings in the Control Panel according to the procedures below.

#### **Configuring Sounds and Audio Devices in the Control Panel**

- ①** Double-Click **Start > Control Panel > Sounds and Audio Devices**.
- ②** Select the **Audio** tab in the Sounds and Audio Devices Properties window.
- ③** Check if the Sound playback and Sound recording device is set to Bluetooth audio (for a mono headset) or High Quality Bluetooth audio (for a stereo headset).

**A2** Check if the headset is properly connected and is operating normally.

**A3** Check the volume settings of the headset and the computer.

**A4** If a multimedia application such as Windows Media Player is running when connecting the headset, the headset may not be connected or recognized properly. Connect the headset first and then launch a multimedia application.

## **Security Center**

**Q** To change the popup window display settings when connected to the Internet. In the Windows XP SP2 environment, you can decide whether to display a popup window when connected to the Internet, for user convenience and security.

**A1** To display most of the popup windows when connected to the Internet:

- ①** Click Internet Options in **Start > Control Panel > Security Center > Manage security settings for**.
- ②** In the Privacy tab of Internet Properties, clear Block pop-ups.

**A2** To display popup windows only from the current site when connected to the Internet:

Place the cursor on the notification area at the bottom of the Internet address bar and right-click to display a menu, from which you can select Temporarily Allow Pop-ups or Always Allow Pop-ups from This Site.

### A3 To display popup windows from a particular site:

- ① Click Internet Options in **Start > Control Panel > Security Center > Manage security settings for**.
- ② In the Privacy tab of Internet Properties, click Settings from Block pop-ups.
- ③ Enter a URL to want to allow pop-ups into Address of Web site to allow and click Add.
- ④ You will find that the entered address is added to the allowed sites list. The next time you connect to the Web site, you will see pop-ups appearing.

When you need to re-block a permitted site, select the Web site address that you want to block from the Allowed Sites and click Remove.

**Q** When you connect to a Web site, you see the message, “To help protect your security, Internet Explorer stopped this site from installing an ActiveX control on your computer” or “This site might require the following ActiveX control” below the address bar.

**A** Windows XP SP2 blocks unsigned ActiveX controls from being installed when connected to certain Web sites for security reasons. On some Web sites that have no ActiveX controls installed, applications are not started or do not display properly.

In this case, to install ActiveX controls, right-click the notification area to display a menu from which you can select Install ActiveX control.

**Q** When you see a Windows Security Alert icon (shield) appear on the right part of the Taskbar. With the Security Center feature added, Windows XP SP2 checks the Firewall, the automatic updates configuration and installation of virus-checking programs to display a Windows Security Alert icon on the right part of the Taskbar when it judges that the computer is vulnerable to attacks from the Internet. In this case, check the following to install the necessary components.

### A1 Set up the Windows Firewall.

When you set up the Windows Firewall, you will be protected from unauthorized access through the Internet or the network.

- ① Click Windows Firewall in **Start > Control Panel > Security Center > Manage security settings for**.
- ② From the General tab of Windows Firewall, select **ON** (recommended).
- ③ If you want to allow a certain program or service to gain access to your computer using the Firewall, select and check the program or service that you want to allow access from, in the Exceptions tab of the Windows Firewall. If you want to add a program to Programs and Services, click Add Program and select it.

**A2** Set up Windows Automatic Updates.

This automatically downloads and installs critical updates via the Internet to keep your computer up to date.

- ① Click Automatic Updates in **Start > Control Panel > Security Center > Manage security settings for**.
- ② From general tab of Automatic Updates window, select Automatic (recommended).

**A3** Keep your computer current with the latest virus updates. (ex: Norton Antivirus) Even when you have installed Norton AntiVirus on your computer, Windows cannot recognize the program until you configure the settings, displaying a Security Alert icon.

When you first use or install Norton AntiVirus for the first time, follow the Registration Wizard steps to configure the registration settings.

To protect your computer from virus attacks with the latest updates, click **Options to display the Norton AntiVirus Options** window. From the left menu of the window, check Run Automatic Protection to select Automatic Protection and check Run LiveUpdate to select LiveUpdate.

**A4** Two virus scanning programs on one computer may cause system conflicts. Remove one of the programs from the system.

**A5** If Windows does not recognize the existence of an anti-virus program even when it has been installed, your computer could be vulnerable to attacks from the Internet. You should install an anti-virus program that your computer is able to identify.

Check the following programs which Windows can detect and select one from the list.

A list of anti-virus programs that Windows can detect:

- Symantec Norton Anti-Virus
- NetworkAssociates (McAfee)
- TrendMicro
- ComputerAssociates
- Panda
- Kaspersky
- Ahnlabs (AhnLab)



Visit the Microsoft Web site ([www.microsoft.com](http://www.microsoft.com)) regularly to check the latest list.

## Other Questions

### **Q 4GB memory is not recognized by Windows correctly.**

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**A** This is due to a limitation in 32bit operating systems that exists in notebook computers of other manufacturers. Although the address space of the 32bit operating system is  $2^{32} = 4294967296 = 4,096\text{MB} = 4\text{GB}$ , all of it cannot be allocated to memory, as some of it needs to be used for other purposes by the operating system. Because approximately 1GB of address space needs to be allocated to other system resources such as the BIOS, PCI Device, and VGA for a PC to operate normally. Therefore, even if 4GB of physical memory is installed, the address space allocated to memory is limited to approximately 3GB.

Although users can upgrade their memory to 3 or 4GB, only 3GB is recognized even when 4GB of memory is installed, and a memory upgrade to 4GB is not recommended.

# Product Specifications (R19/R20/R21)

The system specifications may differ depending on the derived models. For detailed system specifications, refer to the product catalogue.

## NP-R19/R20/R21

<b>CPU*</b>	Intel Core™2 Duo processor Intel Core™ Duo processor / Intel Core™ Solo processor Intel Celeron M
<b>Cache Memory*</b>	1MB / 2MB / 4MB
<b>Main Memory*</b>	512MB ~ 2GB, Max 4GB, Memory type : DDR2 SODIMM
<b>Main Chipset*</b>	ATI RS600ME + SB600
<b>Hard Disk Drive*</b>	9.5mmH 2.5" HDD (80GB ~ 200GB)
<b>ODD*</b>	DVD ROM, DVD-Combo, Super-Multi (DL)
<b>Graphics*</b>	Internal Graphic (ATI Radeon Xpress 1250M)
<b>Sound Chipset</b>	ALC262 -GR
<b>Network*</b>	Fax/Modem : V.92 Wired LAN : Broadcom BCM4401E 10/100 Wireless LAN : 802.11BG Bluetooth 2.0+EDR
<b>PCI ExpressCard Slot</b>	PCI Express Card Support
<b>Multi Card Slot*</b>	Memory Stick / Memory Stick Pro / SD Card / xD Card / MMC
<b>Ports*</b>	USB 2.0 Port x 3, Video (Monitor) Port, TV Output Port (S-Video), Headphone Jack, Microphone Jack, Modem Port*, LAN Port, Power Input Jack, Security Lock Port
<b>Dimensions</b>	340.4 X 259.6 X 27.7~38.7 mm
<b>LCD</b>	14.1" WXGA (1280x800)
<b>Weight*</b>	2.39Kg
<b>Battery*</b>	Lithium-Ion Smart Battery: 4 or 8 Cells
<b>Operating Environment</b>	Temperature : -5~40°C for storage, 10~35°C when operating Humidity : 5~90% for storage, 20~80% when operating
<b>Operating Voltage</b>	100 - 240VAC
<b>Frequency</b>	50 / 60Hz
<b>Output Power*</b>	60/90W
<b>Output Voltage</b>	19VDC



- The ( \* ) mark represents optional components. Optional components may not be provided or different components may be provided depending on the computer model.
- The system specifications are subject to change without notice.
- The hard disk drive capacity of a computer in which Samsung Recovery Solution II is installed, is represented as smaller than the product specification.

# Product Specifications (R19plus/R20plus/R21plus/P400)

The system specifications may differ depending on the derived models. For detailed system specifications, refer to the product catalogue.

## NP-R19plus/R20plus/R21plus/P400

<b>CPU*</b>	Intel Core™ 2 Duo Processor Intel Pentium Dual Core Processor Intel Celeron Processor
<b>Cache Memory*</b>	1MB / 2MB / 3MB / 4MB / 6MB
<b>Main Memory*</b>	512MB ~ 2GB, Max 4GB, Memory type : DDR2 SODIMM
<b>Main Chipset*</b>	ATI RS600ME + SB600
<b>Hard Disk Drive*</b>	9.5mmH 2.5" HDD (80GB ~ 250GB)
<b>ODD*</b>	DVD ROM, DVD-Combo, Super-Multi (DL)
<b>Graphics*</b>	Internal Graphic (ATI Radeon Xpress 1250M)
<b>Sound Chipset</b>	ALC262 -GR
<b>Network*</b>	Fax/Modem : V.92 Wired LAN : Broadcom BCM4401E 10/100 Wireless LAN : 802.11BG Bluetooth 2.0+EDR
<b>PCI ExpressCard Slot</b>	PCI Express Card Support
<b>Multi Card Slot*</b>	Memory Stick / Memory Stick Pro / SD Card / xD Card / MMC
<b>Ports*</b>	USB 2.0 Port x 3, Video (Monitor) Port, TV Output Port (S-Video), Headphone Jack, Microphone Jack, Modem Port*, LAN Port, Power Input Jack, Security Lock Port
<b>Dimensions</b>	340.4 X 259.6 X 27.7~38.7 mm
<b>LCD</b>	14.1" WXGA (1280x800)
<b>Weight*</b>	2.39Kg
<b>Battery*</b>	Lithium-Ion Smart Battery: 4 or 8 Cells
<b>Operating Environment</b>	Temperature : -5~40°C for storage, 10~35°C when operating Humidity : 5~90% for storage, 20~80% when operating
<b>Operating Voltage</b>	100 - 240VAC
<b>Frequency</b>	50 / 60Hz
<b>Output Power*</b>	60/90W
<b>Output Voltage</b>	19VDC



### Caution

- The ( \* ) mark represents optional components. Optional components may not be provided or different components may be provided depending on the computer model.
- The system specifications are subject to change without notice.
- The hard disk drive capacity of a computer in which Samsung Recovery Solution II is installed, is represented as smaller than the product specification.

# Product Specifications (R25plus/R26plus)

The system specifications may differ depending on the derived models. For detailed system specifications, refer to the product catalogue.

## NP-R25plus/R26plus

<b>CPU*</b>	Intel Core™ 2 Duo Processor Intel Pentium Dual Core Processor Intel Celeron Processor
<b>Cache Memory*</b>	1MB / 2MB / 3MB / 4MB / 6MB
<b>Main Memory*</b>	512MB ~ 2GB, Max 4GB, Memory type : DDR2 SODIMM
<b>Main Chipset*</b>	ATI RS600ME + SB600
<b>Hard Disk Drive*</b>	9.5mmH 2.5" HDD (80GB ~ 250GB)
<b>ODD*</b>	DVD ROM, DVD-Combo, Super-Multi (DL)
<b>Graphics*</b>	External Graphic (ATI Mobility Radeon 2300 M64S)
<b>Sound Chipset</b>	ALC262 -GR
<b>Network*</b>	Fax/Modem : V.92 Wired LAN : Broadcom BCM4401E 10/100 Wireless LAN : 802.11BG Bluetooth 2.0+EDR
<b>PCI ExpressCard Slot</b>	PCI Express Card Support
<b>Multi Card Slot*</b>	Memory Stick / Memory Stick Pro / SD Card / xD Card / MMC
<b>Ports*</b>	USB 2.0 Port x 3, Video (Monitor) Port, TV Output Port (S-Video), Headphone Jack, Microphone Jack, Modem Port*, LAN Port, Power Input Jack, Security Lock Port
<b>Dimensions</b>	340.4 X 259.6 X 27.7~38.7 mm
<b>LCD</b>	14.1" WXGA (1280x800)
<b>Weight*</b>	2.39Kg
<b>Battery*</b>	Lithium-Ion Smart Battery: 4 or 8 Cells
<b>Operating Environment</b>	Temperature : -5~40°C for storage, 10~35°C when operating Humidity : 5~90% for storage, 20~80% when operating
<b>Operating Voltage</b>	100 - 240VAC
<b>Frequency</b>	50 / 60Hz
<b>Output Power*</b>	60W/90W
<b>Output Voltage</b>	19VDC



### Caution

- The ( \* ) mark represents optional components. Optional components may not be provided or different components may be provided depending on the computer model.
- The system specifications are subject to change without notice.
- The hard disk drive capacity of a computer in which Samsung Recovery Solution II is installed, is represented as smaller than the product specification.

## Wireless LAN Specifications (802.11a/b/g, 802.11n Card)

### Intel(R) PRO/Wireless 3945ABG Network Adapter Device

- **The Name of the Registered Equipment** : Special Low Power Wireless Device for Wireless Data Communication Systems.

Item		Detailed Specifications
Physical Specifications	Dimensions	30.0 × 50.95mm (Width X Height)
	Operating Temperature And Humidity	Same as System Operations Temperature: Bet. 0°C and 70°C, Humidity: Less than 85%
Power Specifications	Sleep Mode	70mW
	Receive Mode	0.95W
	Transmission Mode	1.4W
	Power	3.3V
Network Specifications	Compatibility	IEEE 802.11a, IEEE 802.11b, IEEE 802.11g
	Operating System	Microsoft Windows XP/Vista
	Media Access Protocol (MAC)	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*

- \* This device supports the Wireless LAN Security Specifications WPA (Wi-Fi Protected Access) for Wi-Fi. To connect to a WPA wireless network, you have to configure the settings according to the network connection environment. For detailed setting information, ask your network administrator.

## ■ Radio Specifications

<b>RF Band</b>	2.4GHz, 5GHz
<b>Supported Channels</b>	Channels allowed per country.
<b>Device</b>	Transceiver
<b>Standard Output Power</b>	5 mW
<b>Modulation Scheme</b>	11a mode : OFDM
	11b mode : DSSS
	11g mode : OFDM
<b>Data Rate (Mbps)*</b>	11a mode** : 54, 48, 36, 24, 18, 12, 9, 6
	11b mode : 11, 5.5, 2, 1
	11g mode*** : 54, 48, 36, 24, 18, 12, 9, 6
<b>Antenna Type</b>	Built-in Antenna

\* The data rate may differ from the real data transmission rate.

\*\* 11a mode is only supported when the device is connected to an IEEE 802.11a device. (e.g. Access Point supporting IEEE 802.11a)

\*\*\* 11g mode is only supported when the device is connected to an IEEE 802.11g device. (e.g. Access Point supporting IEEE 802.11g)

## Intel(R) Wireless WiFi Link 4965AGN Device

- **The Name of the Registered Equipment** : Special Low Power Wireless Device for Wireless Data Communication Systems.

Item		Detailed Specifications
<b>Physical Specifications</b>	Dimensions	30.0 × 50.95mm (Width X Height)
	Operating Temperature And Humidity	Temperature: Between 0°C and 70°C, Maximum Humidity: 85%
<b>Power Specifications</b>	Sleep Mode	24mW
	Receive Mode	0.91W(one Rx chain), 1.4W(two Rx chain), 1.76(three Rx chain)
	Transmission Mode	1.4W(one Tx), 2.03W(two Tx)
	Power	3.3V
<b>Network Specifications</b>	Compatibility	IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n
	Operating System	Microsoft Windows XP/Vista
	Media Access Protocol (MAC)	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*

\* This device supports the Wireless LAN Security Specifications WPA (Wi-Fi Protected Access) for Wi-Fi. To connect to a WPA wireless network, you have to configure the settings according to the network connection environment. For detailed setting information, ask your network administrator.

## ■ Radio Specifications

<b>RF Band</b>	2.4GHz, 5GHz
<b>Supported Channels</b>	Channels allowed per country.
<b>Device</b>	Transceiver
<b>Modulation Scheme</b>	11a mode : OFDM 11b mode : DSSS 11g mode : OFDM 11n mode : MIMO
<b>Data Rate (Mbps)*</b>	11a mode** : 54,48,36,24,18,12,9,6 11b mode : 11, 5.5, 2, 1 11g mode*** : 54, 48, 36, 24, 18, 12, 9, 6 11n mode**** : 300, 270, 243, 216, 162, 144, 130, 117, 108, 104, 81, 78, 54, 52, 39, 27, 26, 13
<b>Antenna Type</b>	Built-in Antenna

\* The data rate may differ from the real data transmission rate.

\*\*11a mode is only supported when it is connected to an IEEE802.11a device (e.g. Access Point supporting IEEE802.11a).

\*\*\* 11g mode is supported only when you are connected to an IEEE 802.11g device (e.g. An Access Point supporting IEEE 802.11g).

\*\*\*\* 11n mode is only supported when it is connected to an IEEE802.11n device (e.g. Access Point supporting IEEE802.11n).

## Wireless LAN Specifications (802.11BG Card)

### Intel(R) PRO/Wireless 3945BG Network Adapter Device

- **The Name of the Registered Equipment** : Special Low Power Wireless Device for Wireless Data Communication Systems.

Item		Detailed Specifications
Physical Specifications	Dimensions	30.0 × 50.95mm (Width X Height)
	Operating Temperature And Humidity	Same as System Operations
		Temperature: Bet. 0°C and 70°C, Humidity: Less than 85%
Power Specifications	Sleep Mode	70mW
	Receive Mode	0.95W
	Transmission Mode	1.4W
	Power	3.3V
Network Specifications	Compatibility	IEEE 802.11b, IEEE 802.11g
	Operating System	Microsoft Windows XP/Vista
	Media Access Protocol (MAC)	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*

\* This device supports the Wireless LAN Security Specifications WPA (Wi-Fi Protected Access) for Wi-Fi. To connect to a WPA wireless network, you have to configure the settings according to the network connection environment. For detailed setting information, ask your network administrator.

## ■ Radio Specifications

<b>RF Band</b>	2.4GHz
<b>Supported Channels</b>	Channels allowed per country.
<b>Device</b>	Transceiver
<b>Standard Output Power</b>	5 mW
<b>Modulation Scheme</b>	11b mode : DSSS
	11g mode : OFDM
<b>Data Rate (Mbps)*</b>	11b mode : 11, 5.5, 2, 1
	11g mode** : 54, 48, 36, 24, 18, 12, 9, 6
<b>Antenna Type</b>	Built-in Antenna

\* The data rate may differ from the real data transmission rate.

\*\* 11g mode is only supported when the device is connected to an IEEE 802.11g device. (e.g. Access Point supporting IEEE 802.11g)

## Wireless LAN Specifications (802.11BG Card)

### Atheros Wireless Network Adapter Device

- **The Name of the Registered Equipment** : Special Low Power Wireless Device for Wireless Data Communication Systems.

Detailed Specifications		
Item	Physical Specifications	
Physical Specifications	Dimensions	30.0 × 50.95mm (Width X Height)
	Operating Temperature And Humidity	Temperature: Between 0°C and 70°C, Maximum Humidity: 85%
Power Specifications	Sleep Mode	726mW
	Receive Mode	1.353W
	Transmission Mode	2.046W
	Power	3.3V
Network Specifications	Compatibility	IEEE 802.11b, IEEE 802.11g
	Operating System	Microsoft Windows XP/Vista
	Media Access Protocol (MAC)	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*

- \* This device supports the Wireless LAN Security Specifications WPA (Wi-Fi Protected Access) for Wi-Fi. To connect to a WPA wireless network, you have to configure the settings according to the network connection environment. For detailed setting information, ask your network administrator.

## ■ Radio Specifications

<b>RF Band</b>	2.4GHz
<b>Supported Channels</b>	Channels allowed per country.
<b>Device</b>	Transceiver
<b>Standard Output Power</b>	MAX 10mW
<b>Modulation Scheme</b>	11b mode : DSSS, CCK
	11g mode : OFDM
<b>Data Rate (Mbps)*</b>	11b mode : 11, 5.5, 2, 1
	11g mode** : 54, 48, 36, 24, 18, 12, 9, 6
<b>Antenna Type</b>	Built-in Antenna

\* The data rate may differ from the real data transmission rate.

\*\* 11g mode is supported only when you are connected to an IEEE 802.11g device (e.g. An Access Point supporting IEEE 802.11g).

## Atheros AR5007EG Wireless Network Adapter

- **The Name of the Registered Equipment** : Special Low Power Wireless Device for Wireless Data Communication Systems.

Item		Detailed Specifications
Physical Specifications	Dimensions	30.0 × 50.95mm (Width X Height)
	Operating Temperature And Humidity	Temperature: Between 0°C and 70°C, Maximum Humidity: 85%
Power Specifications	Sleep Mode	726mW
	Receive Mode	1.353W
	Transmission Mode	2.046W
	Power	3.3V
Network Specifications	Compatibility	IEEE 802.11b, IEEE 802.11g
	Operating System	Microsoft Windows XP/Vista
	Media Access Protocol (MAC)	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*

- \* This device supports the Wireless LAN Security Specifications WPA (Wi-Fi Protected Access) for Wi-Fi. To connect to a WPA wireless network, you have to configure the settings according to the network connection environment. For detailed setting information, ask your network administrator.

## ■ Radio Specifications

<b>RF Band</b>	2.4GHz
<b>Supported Channels</b>	Channels allowed per country.
<b>Device</b>	Transceiver
<b>Standard Output Power</b>	MAX 10mW
<b>Modulation Scheme</b>	DSSS, CCK, OFDM
<b>Data Rate (Mbps)*</b>	11b mode : 11, 5.5, 2, 1
	11g mode** : 54, 48, 36, 24, 18, 12, 9, 6
<b>Antenna Type</b>	Built-in Antenna

\* The data rate may differ from the real data transmission rate.

\*\* 11g mode is supported only when you are connected to an IEEE 802.11g device (e.g. An Access Point supporting IEEE 802.11g).

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# Glossary

The Glossary lists the terminologies used in this User Guide.

For terminologies other than these, look in Windows Help.

## Backup

A way to save the current data to restore it later if necessary. A backup is a way to restore computer data when the data or computer is damaged.

## Client

This refers to a computer that uses a shared network resource provided by a server.

## DDR SDRAM (Double Data Rate Synchronous Dynamic Random Access Memory)

DRAM is a memory type whose cells consist of a capacitor and transistor manufactured at a low price. SDRAM is a memory type whose performance has been improved by synchronizing the clock with the external CPU clock. DDR SDRAM is a memory type whose performance has been improved by doubling the operating speed of the SDRAM and is widely used nowadays. This computer uses DDR SDRAM.

## Device Manager

An administrative tool used to manage computer devices. You can add or remove hardware or update a device driver using the Device Manager.

## Direct X

An application interface developed to enable Windows application programs to access hardware devices at a very high speed. Since the operating speed of graphics, memory and sound cards must be very fast to provide high quality video and sound for games, Direct X enables faster control and interaction between applications and hardware devices. By using Direct X, the multimedia performance of Windows has been hugely improved.

## Driver

Software that interacts between the hardware and the operating system. An operating system knows the hardware information and controls the hardware. In general, a driver is supplied with the corresponding hardware device.

## DVD (Digital Versatile Disk)

DVD was developed to replace CD (compact disk). Although the shape and size of the disc are the same as that of a CD, the capacity of a DVD is at least 4.7GB while the capacity of a CD is 600MB. DVD video is digital unlike VHS (analog) video and supports MPEG2 compression and digital audio. To play a DVD, a DVD drive is required.

## **Firewall**

A security system used to protect an internal network or intranet from external networks through an authentication procedure.

## **Hibernation Mode**

A power mode that saves all data in memory to the hard disk and turns the CPU and hard disk off. When canceling Hibernation Mode, all application programs that were running are restored to their last state.

## **Icon**

This refers to a small image that represents a file that users can use.

## **LAN (Local Area Network)**

A communications network connecting computers, printers and other devices within a local area such as within a building. A LAN enables all connected devices to interact with other devices on the network. The current LAN uses the Ethernet media access control method developed in the early 1980s. To connect to an Ethernet, a network card called a LAN card, Ethernet card or network interface card is required. To exchange data between computers, a protocol is required besides the hardware equipment. Windows XP uses TCP/IP as the default protocol.

## **LCD (Liquid Crystal Display)**

There are Passive Matrix and Active Matrix LCD types. This computer uses the Active Matrix type LCD called a TFT LCD. Since an LCD is implemented by transistors instead of a cathode-ray tube unlike a CRT, its size can be slim. And because it does not blink, it reduces eye strain.

## **Network**

A group of computers and devices, such as printers and scanners, connected by a communications link. A network can be either small or large and can be connected permanently through cables or temporarily through telephone lines or wireless links. The biggest network is the Internet, a worldwide network.

## **Notification Area**

This refers to the right area of the Taskbar including program icons such as the volume control, the power options and the time.

## **Power Schemes**

This refers to a pre-determined power management option group. For example, you can set the time the computer waits before entering Standby Mode, or before the monitor or hard drive turns off. The settings are saved as a power scheme.

## Quick Launch

This refers to a toolbar that can be configured so that you can launch a program such as Internet Explorer or display the Windows Desktop with one click. You can add any icon to the quick launch area of the Taskbar and launch frequently used program by clicking that icon.

## Server

In general, a server refers to a computer that provides shared resources for network users.

## Share

This refers to setting a resource of a computer such as a folder or printer so that other users can also use it.

## Shared Folder

A folder that can be used by other users on the network.

Network Administrator

A user who plans, configures and manages network operations. Sometimes, a network administrator is called a system administrator.

## Sleep Mode

A power mode that enables computers to save power consumption when they are not being used. When a computer is in Sleep Mode, the data on the computer memory is not saved to the hard disk. If the power is turned off, the data in memory will be lost.

## System File

System Files refer to files that are read and used by the Windows operating system. In general, system files must not be deleted or moved.

## USB (Universal Serial Bus)

This refers to a serial interface standard developed to replace the conventional interface standards such as Serial and PS/2. While USB 1.1 supports 12Mbps (12 million bits per second), USB 2.0 supports a data rate that is 40 times (480Mbps) faster than that of USB 1.1. The data rate of USB 2.0 is equivalent to that of IEEE1394. Therefore USB 2.0 is used for A/V devices supported by IEEE 1394 and a 2nd HDD and CDRW that require a high data rate.

## Windows Media Player

A multimedia program included with Windows. Using this program, you can play a media file, create an audio CD, listen to a radio broadcast, search and manage media files, and copy files to a portable device, etc.

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